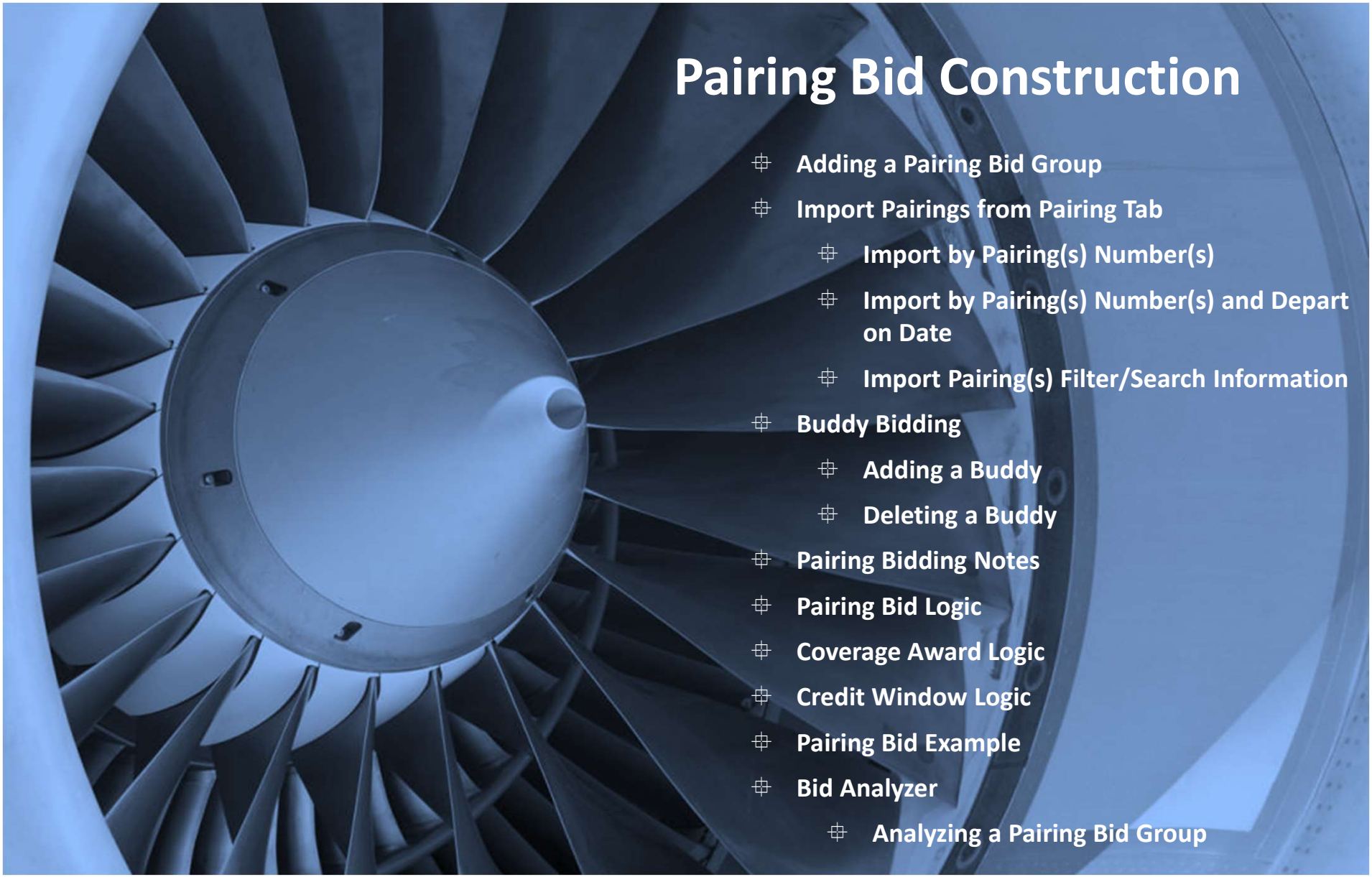
Section 3 - 4



Pairing Bid Construction

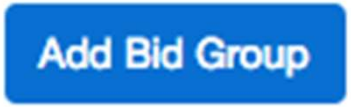
- Adding a Pairing Bid Group
- Import Pairings from Pairing Tab
  - Import by Pairing(s) Number(s)
  - Import by Pairing(s) Number(s) and Depart on Date
  - Import Pairing(s) Filter/Search Information
- Buddy Bidding
  - Adding a Buddy
  - Deleting a Buddy
- Pairing Bidding Notes
- Pairing Bid Logic
- Coverage Award Logic
- Credit Window Logic
- Pairing Bid Example
- Bid Analyzer
  - Analyzing a Pairing Bid Group

Adding a Pairing Bid Group

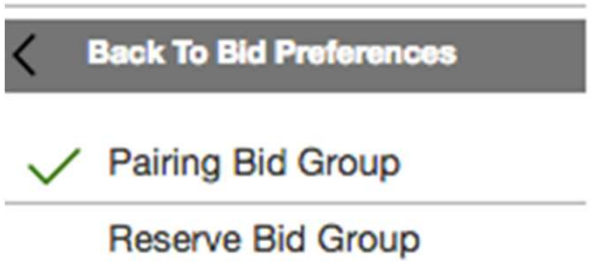
1. Click the **Bids** Tab

2. Click Bid Type - **Current** or **Default Tab**

3. Click **Add Bid Group**

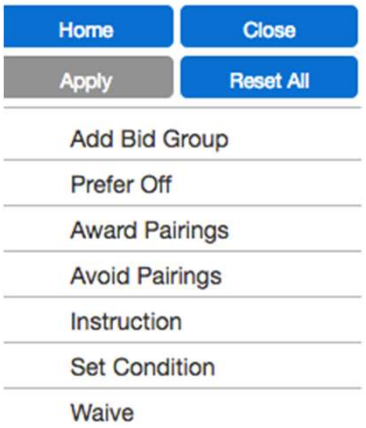


4. Click **Pairing Bid Group**



5. Click **Apply**

6. Select each preference using the Bid Preference Editor



7. Click **Apply** to add each bid line

8. Click **Reset All** to clear criteria and start over

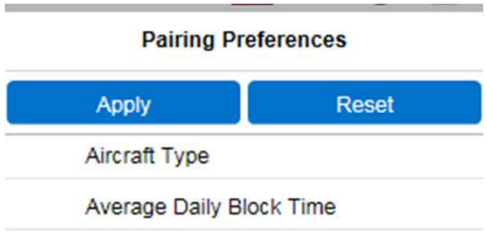
Import Pairings from Pairing Tab Notes:

- You can bid for Award or Avoid from the Pairing tab.
- You will be able to use up to 6 Pairing Preferences to filter your Pairing(s) search.
- You will need to **Start** a bid group to import pairing from the pairing tab or select the group that the pairings will be imported to.
- You will have 3 options when it comes to import pairing(s):
  - Importing pairing(s) number(s) only,
  - Importing pairing(s) number(s) and departing on date(s), and
  - Importing filter/search information only.
- You can’t import using multiple options at once.

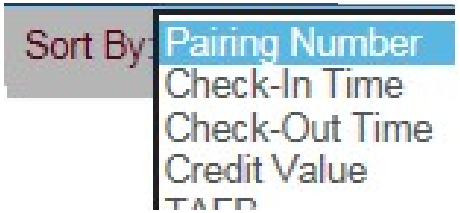
Import by Pairing(s) Number(s)

1. Go to the Bid Tab and select a bid line. PBS will import the Pairing Information below the selected bid line.
2. Click Pairings Tab. 

3. Click “Enable add bids mode”. 
4. Search for Pairings using Pairing Preferences.



And/or use “**Sort by”** button



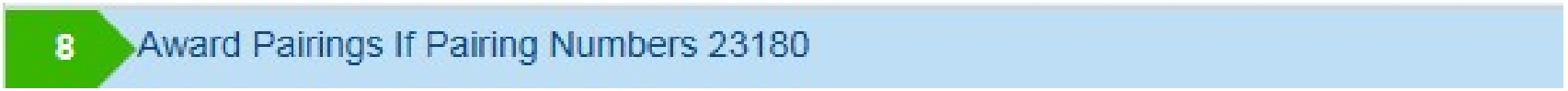
5. Click Apply.

Import by Pairing(s) Number(s)

6. Click the checkmark to select desired pairing(s). 

7. Click Award  or Avoid  to import pairing(s) number(s) to your bid.

8. Go to your Bid tab and review import.



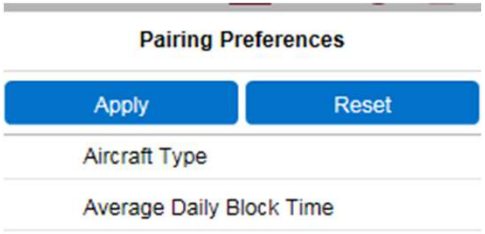
*You will need to manually edit the imported pairing(s) to reflect the position.

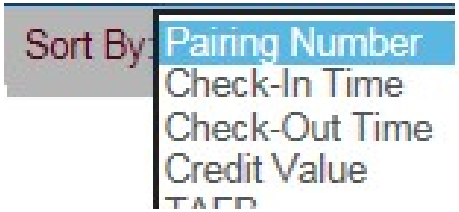
9. Click “Reset” on Pairing Preferences in order to start a new search on the pairing tab.

Import by Pairing(s) Number(s) and Departing on Date(s)

1. Go to the Bid Tab and select a bid line. PBS will import the Pairing Information below the selected bid line.
2. Click Pairings Tab. 

3. Click “Enable add bids mode”. 
4. Search for Pairings using Pairing Preferences.

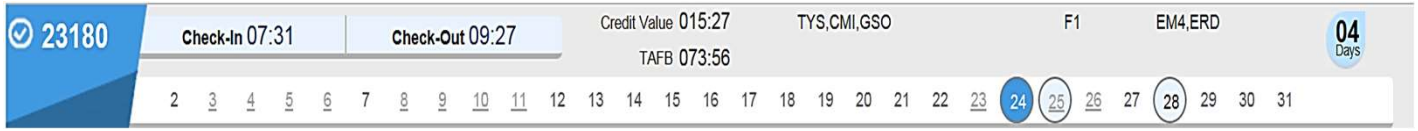


And/or use “**Sort by”** button 

5. Click Apply.
6. Click the checkmark to select desired pairing(s). 

Import by Pairing(s) Number(s) and Departing on Date(s)

7. If a pairing is scheduled to depart in more than one date, select the desired date. It should highlight dark blue.



8. Click Award  or Avoid  to import pairing(s) number(s) to your bid.

9. Go to your Bid tab and review import.

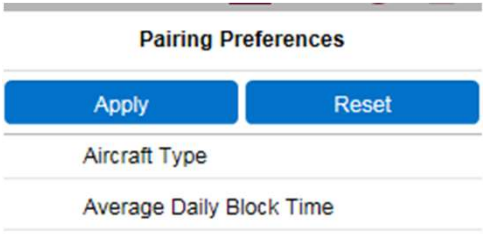
You will need to manually edit the imported pairing(s) to reflect the position.

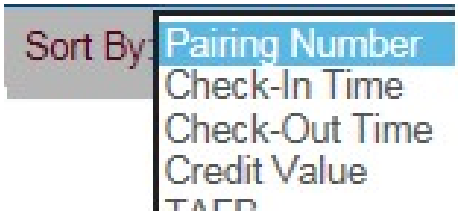
10. Click “Reset” on Pairing Preferences in order to start a new search on the pairing tab.

Import Pairing(s) Filter/Search Information

1. Go to the Bid Tab and select a bid line. PBS will import the Pairing Information below the selected bid line.
2. Click Pairings Tab. 

3. Click “Enable add bids mode”. 
4. Search for Pairings using Pairing Preferences.



And/or use “**Sort by”** button 

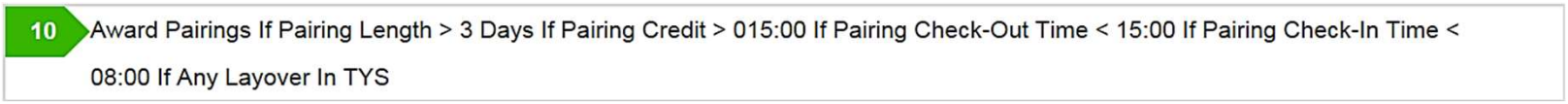
5. Click Apply.

Import Pairing(s) Filter/Search Information

6. Click the checkmark to Enable “Pairing Filtered Award” box.

7. Click Award  or Avoid  to import pairing(s) number(s) to your bid.

8. Go to your Bid tab and review import.



9. To start a new import from the pairing tab, go to the Pairing Preferences and Click “Reset” .

Buddy Bidding

- A buddy bid lets you identify another crew member to bid with and tries to create blocks for each buddy that have the same pairings on the same dates.

- Each crew member must enter the other crew member as a buddy for buddy bidding to occur. The senior crew member is processed at the same seniority as the junior crew member.

- Crew members who are buddy bidding with a more junior crew member should also submit a **non-buddied bid group**, even though it won't be used for buddy bidding. If something happens, such as the other buddy forgetting to enter your employee number or entering the wrong employee number, the PBS Scheduler will process their bid at their regular seniority to create their block.

Note: The Buddy bid box is showing all times. However, you must ensure to enter the buddy bid number within the correct bid type (Current or Default).

Adding a Buddy

1. Go to the **Bids screen** and choose the Bid Type: **Current or Default**.

1. Click on the red **X** right to the Buddy ID. It will turn into a red checkmark.

2. Enter your Buddy's employee number. **You must to enter 00 + employee number.** The number you enter is red until you have entered a valid employee number. A valid employee number will turn green.

3. Click on the check mark again to lock the employee number. The ☑ check mark turns into an **X**.

Deleting a Buddy

To delete a Buddy:

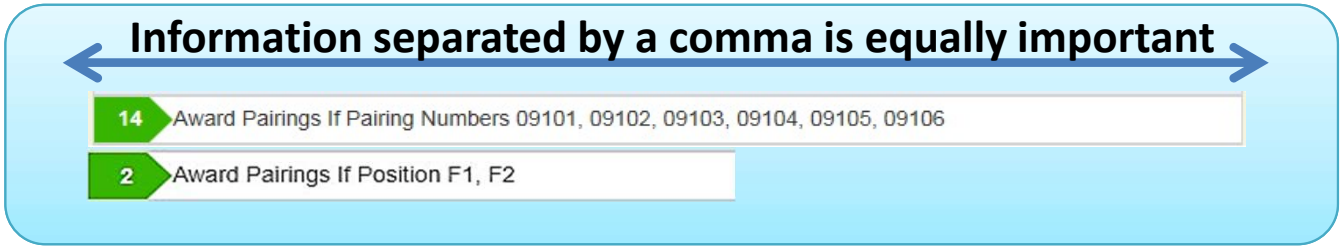
1. Repeat steps 1 and 2.
2. Delete the employee number.
3. Click on the red check mark again to lock empty box.

Note:
If you do not click on the check mark to lock the box when adding, changing, or deleting a buddy, the following message will be displayed:

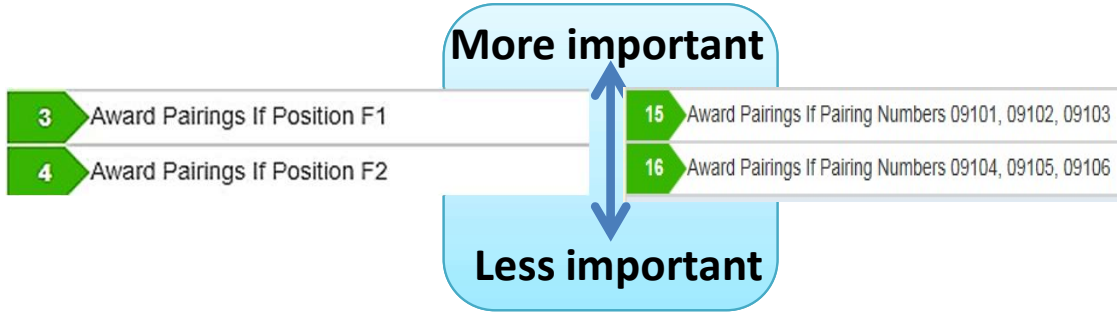
Click on the check mark to lock or OK if you want to continue without locking.

Pairing Bidding Notes

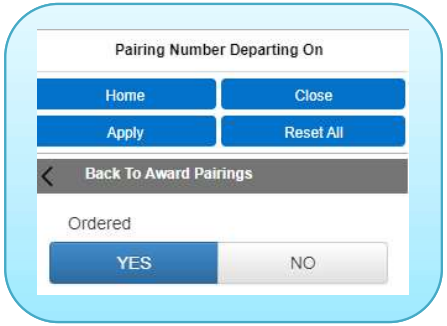
- Unless the ORDER feature is selected, the PBS Scheduler considers items (departure dates, pairings, position, etc.) within a comma-separated list on the same **Award/Avoid** bid line to have equal preference.



- If something is more important to you than another, it should be on a separate bid line entered in priority order.

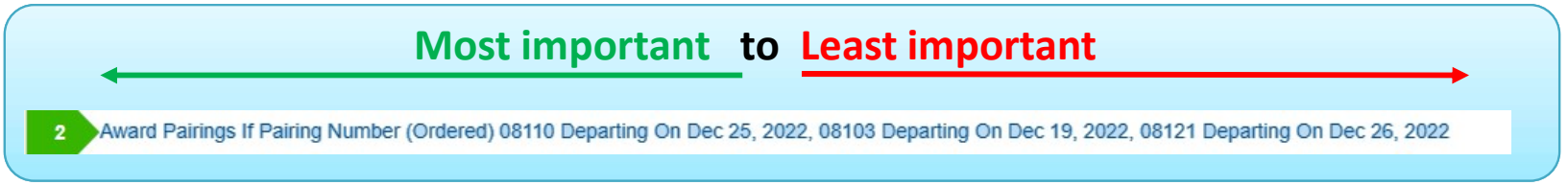


Pairing Bidding Notes

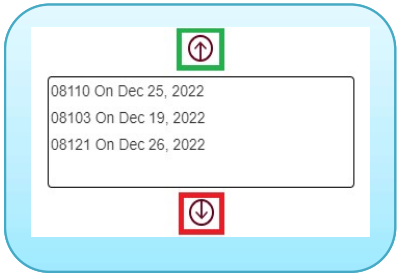


- The ORDER feature is available when selecting pairing number departing under the award bid preference.
- Selecting NO tells the system that all pairings in the same bid line are equally important.

- Selecting YES tells the system that the order of pairings matters:



- You can use the arrows to select the order of the pairings before applying your selection to an award bid line.



Pairing Bid Logic

- Starting at the top of your Pairings bid group, the PBS Scheduler reads each of your bid preferences and remembers all restrictions you specify. The PBS Scheduler must honor all Set Condition, Prefer Off, and Avoid Pairings bid preferences.
- When the PBS Scheduler reaches your first Award Pairings bid preference, it searches the pool of available pairings (now restricted by any prior Prefer Off and Avoid Pairings bid preferences) and begins awarding pairings that match this preference.
- Each attempt to place a pairing in your block undergoes a rule check to ensure that the resulting block is legal. If the PBS Scheduler has awarded as many pairings that match this Award preference as possible and your block is not complete, it moves on to the next bid line. The PBS Scheduler continues to read your bid until it completes your block or reaches the last bid line.

Pairing Bid Logic

- Once your block is complete, the PBS Scheduler stops processing your bid, even if it has not read all the bid lines.

- If your block is still not complete when the PBS Scheduler reaches your last bid line, it reads the system-generated bid preference, Award Pairings, and begins to fill your block by awarding any available pairings that respect your Prefer Off, Avoid Pairings, and Set Condition bid preferences.

- If the block is still not complete, the PBS Scheduler tries to replace pairings with alternatives that match the same or lower bid preferences and still honor your Set Condition, Prefer Off, and Avoid Pairings bid preferences. For example, the PBS Scheduler may remove one pairing that matches bid preference 6 and replace it with two pairings that match bid preference 7 to complete the block. This action is called **Shuffling**.

Pairing Bid Logic

Shuffling only considers pairings that have been awarded by Award bid preferences that appear after the last negative bid preference in the bid.

- Note that shuffling tries to create a complete block by replacing pairings that match a higher bid with pairings that have more credit value.
- Shuffling is the only time when pairings that match a lower bid may be awarded instead of pairings that match a higher bid.
- If shuffling does not produce a complete block, the PBS Scheduler enters **Denial Mode**.

Pairing Bid Logic

- In **Denial Mode**, the PBS Scheduler deletes your Set Condition, Prefer Off, and Avoid Pairings bid preferences.

- The PBS Scheduler clears your block and goes back to the top of your bid, and starts processing each bid preference again. The PBS Scheduler continues to re-add deniable bid preferences, reprocessing your bid until it reaches the credit window.

Pairing Bid Logic

Denial Mode handles certain deniable bid preferences differently than others.

- Set Condition and Avoid Pairings bid preferences are removed completely, even if you have more than one option on the bid preference, such as Landings In AGU, or YYZ.

- Prefer Off bid preference options are removed one at a time if you have more than one option on the bid preference, such as a list of preferred days off. In this case, Denial Mode removes the date at the end of the list first and works towards the left if it needs to remove additional days or dates.

The PBS Scheduler tries to get every block above the threshold credit value. However, if your block is above the minimum credit value, the PBS Scheduler will not go into **Denial Mode** forcing your block above the threshold credit value.

Pairing Bid Logic

- If **Denial Mode** has removed all deniable bid preferences without producing a complete block, the PBS Scheduler tries to create a block using only the Award bid preferences.

- If the PBS Scheduler still can't create a block, it makes a final attempt using only the system-generated Award Pairings bid preference. This final attempt, called **secondary line generation (SLG),** ignores all preferences and performs an exhaustive search to find you a complete block.

- If you don't have any deniable bid preferences, **Denial Mode** goes directly to the final completion attempt and attempts to find you a complete block using **SLG.**

Coverage Award Logic

Coverage Awards will occur when there is an excessive number of pairings remaining in open time on a certain date(s). Some of these pairings must be assigned to ensure adequate operational coverage.

- Stacks are groups of pairings operating within a critical period that remain unassigned. Stacks may result from spikes in the flight schedule or an abnormally high number of requests for the same day off, such as Thanksgiving or Christmas Day.

- The PBS Scheduler begins awarding pairings from the stack(s) in inverse seniority order, subject to legalities and pre-awards.

- After awards are published, coverage award pairings can be treated as any other awarded pairing for swapping, dropping, and trading purposes.

Coverage Award Logic

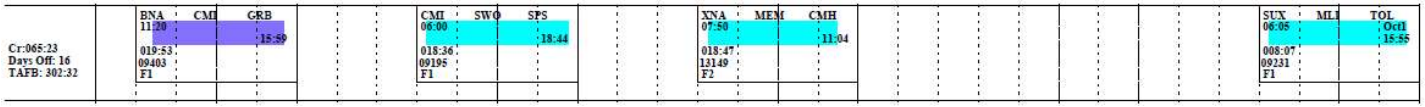
- **Coverage Awards** are assigned before any bid preferences. The PBS Scheduler attempts to match your coverage award(s) with your **award/avoid** bid preferences.

```
Coverage Awards
  09403      2017-08-31 (019:53)  from Bid 13  (F1)
  (1 Awarded, Running total: 019:53)

<< Default Bid >>
   -------------------------
  1.   Start Pairings
  2.     Waive Minimum 2 Days Off In A Row
  Honored
  3.     Set Condition Minimum Credit Window
  Honored
  4.     Prefer Off Sep 21  2017 - Sep 24  2017
```

- Once a pairing from a stack has been forced onto a block, the pairing is marked as unmovable and can't be swapped or substituted from the block. The rest of the block must be built around the pairing or pairings awarded for coverage, using the Crew member's bid.

- Coverage awards are colored purple on the bid result.



- Coverage awards are listed in the order in which they were awarded by the PBS Scheduler on the Reasons Report.

Credit Window Logic

- The PBS Scheduler utilizes three separate, biddable Credit Windows for awarding full-time blocks. The bid preferences determine which Credit Window is used for bid processing.

- Each Credit Window (Maximum, Normal, and Minimum Credit) is comprised of three Credit Values (Maximum, Threshold, and Minimum Value) which are utilized by the PBS scheduler in processing the bids.

    - If a Crewmember bids Set Condition Maximum Credit, the global parameters for the bid are set to the Maximum Credit Window.
    - If a Crewmember does not have a preference for credit, the global parameters for the bid default to the Normal Credit Window.
    - If a Crewmember bids Set Condition Minimum Credit, the global parameters for the bid are set to the Minimum Credit Window.

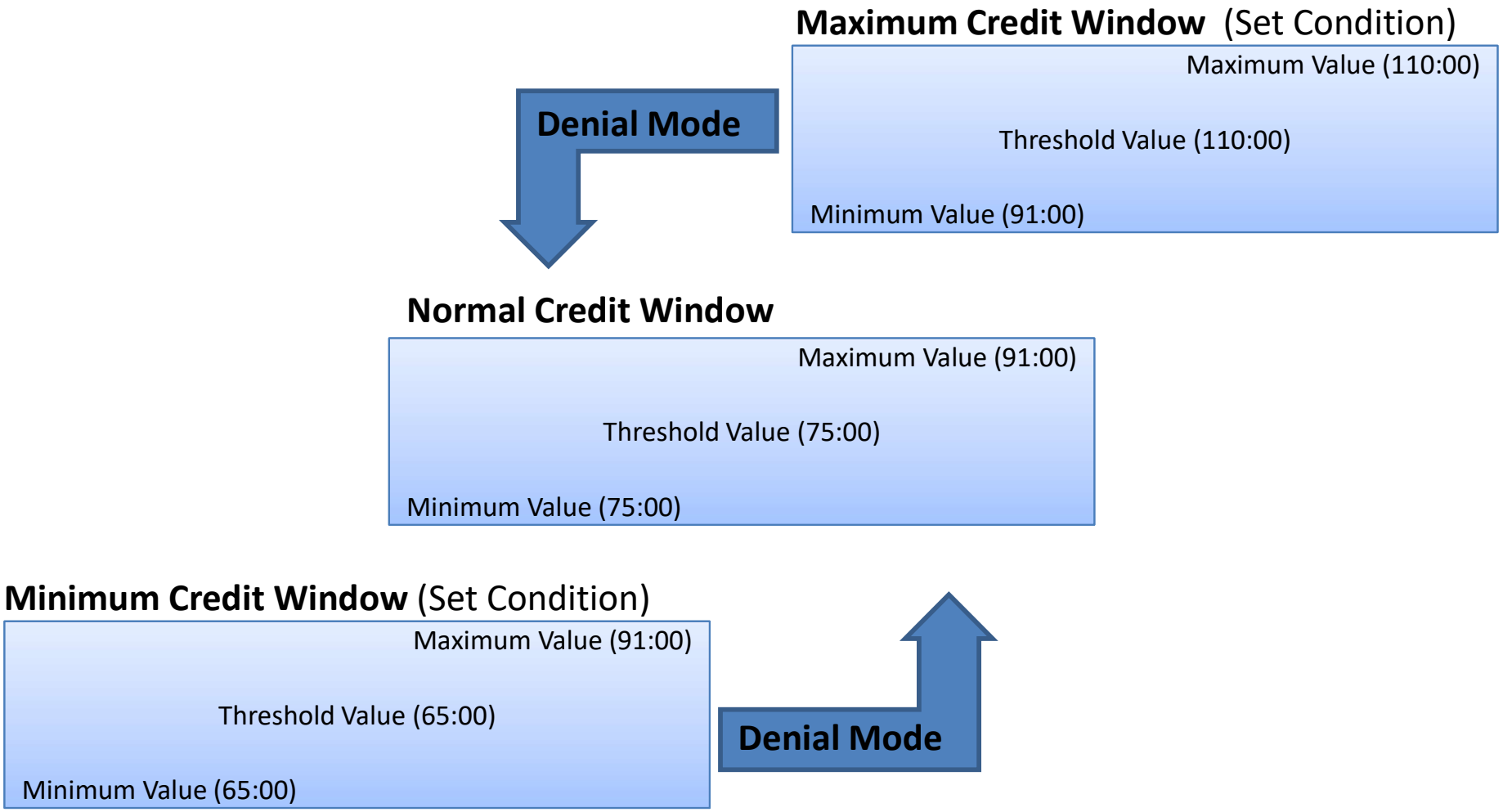
Credit Window Logic

- For any given completion attempt, the PBS Scheduler awards pairings normally until your total credit is above the Threshold Value for the applicable Credit Window. At this point, the PBS Scheduler stops adding pairings and your block is complete.

- If Threshold Value is not achieved, but the total credit is above the Minimum Value, your block is considered complete—the PBS Scheduler will not utilize Shuffling or Denial Mode to force your block above the Threshold Value.

- However, if your block is not above the Minimum Value, the PBS Scheduler will utilize Shuffling and, if necessary, Denial Mode to complete your block.

Credit Window Logic



Pairing Bid Example

Jack is a commuter from STL based in Chicago. Jack can't typically get to ORD when he commutes until 10 am and must leave by the 6 pm flight out to avoid another night in a commuter hotel. Jack really doesn't care when he works or where he goes although he typically likes one pairing to BWI per month. His anniversary is this month, and he would like to be off from the 14th to the 17th, in that order of priority. One thing that Jack likes to do is sleep at home whenever he can!

1. Pairing Bid Group
2. Prefer Off Dec 14, 2017 - Dec 17, 2017
3. Award Pairings If Layover In BWI If Pairing Check-In Time > 09:59 If Pairing Check-Out Time < 18:01 Limit 1
4. Avoid Pairings If Pairing Check-In Time < 10:00
5. Avoid Pairings If Pairing Check-Out Time > 18:00
6. Award Pairings If Layover In STL
   Start Pairings
   Award Pairings
   Start Reserve

Pairing Bid Example

Jen likes to have the PBS system work for her. She lives in base and doesn't really care when she shows up and checks out. Jen likes layovers in Mexico, preferably ones with at least 18 hours of layover time. She would rather do MZT but doesn't mind AGU or SLP if she can't get MZT. She can always hold the Mexico pairings that depart on Mondays, her preference. There was, however, one pairing that caught her eye. Pairing 13059 really looked appealing and she wants to get this before anything else, but only one since it looks like a tough one. If she must fill her block up to complete it, she would prefer one or two-day pairings.

1. Pairing Bid Group
2. Award Pairings If Pairing 13059 Limit 1
3. Award Pairings If Departing on Monday If Layover In MZT If Layover Duration > 018:00
4. Award Pairings If Departing on Monday If Layover In AGU, SLP If Layover Duration > 018:00
5. Award Pairings If Pairing Length Between 1 days And 2 days
   Start Pairings
   Award Pairings
   Start Reserve

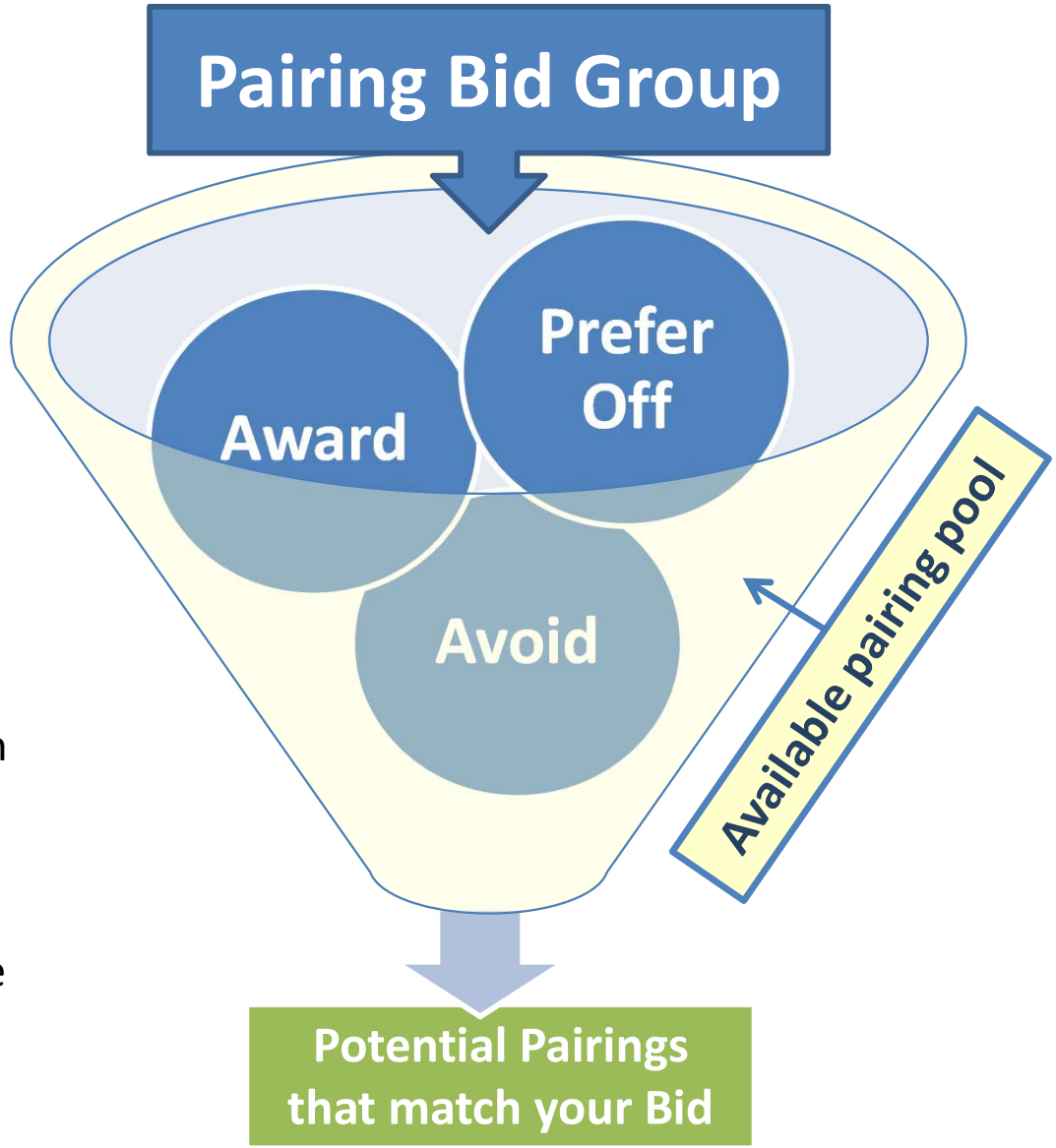
Bid Analyzer

- The Bid Analyzer is a tool that shows you how many pairings match a negative or positive bid preference.
- It shows you how your bid affects the available pairing pool. You can use this information to determine how effective a bid preference or your entire bid group is.
- For example, if a bid preference doesn't match any pairings in the available pool, it won't have any effect on your award. If your negative bids remove a large number of pairings or all pairings from your pairing pool, some of your bids will be denied.

Note: The Analyzer only determines the effectiveness of your Pairing Bid. Just because a pairing is within the pairing pool does not necessarily mean it will be awarded. The Analyzer does NOT consider seniority.

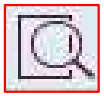
Bid Analyzer

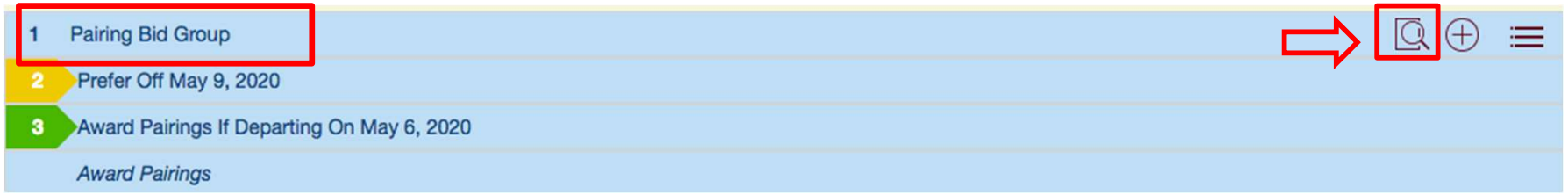
- Analyzes a **Pairing Bid Group.**
- **Does not** consider **Set Condition or Waive Bid Preferences.**
- On a **negative** bid, the analyzer shows you how many pairings are removed from the available pairing pool.
- On a **positive** bid, the analyzer shows you how many potential pairings are in the pairing pool.
- You can use the bid analyzer to evaluate a single bid line or your entire bid group.



Analyzing a Pairing Bid Group

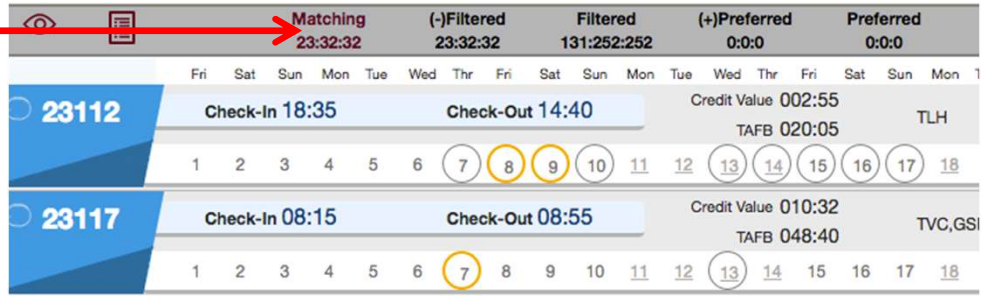
To use the Bid Analyzer on a Pairing Bid Group:

1. Add an Award/Avoid Pairing or Prefer Off Bid line.
2. Click the Pairing Bid Group line to highlight the entire bid group.
3. Click the analyzer button.  The Bid Analyzer opens at the bottom of the screen.

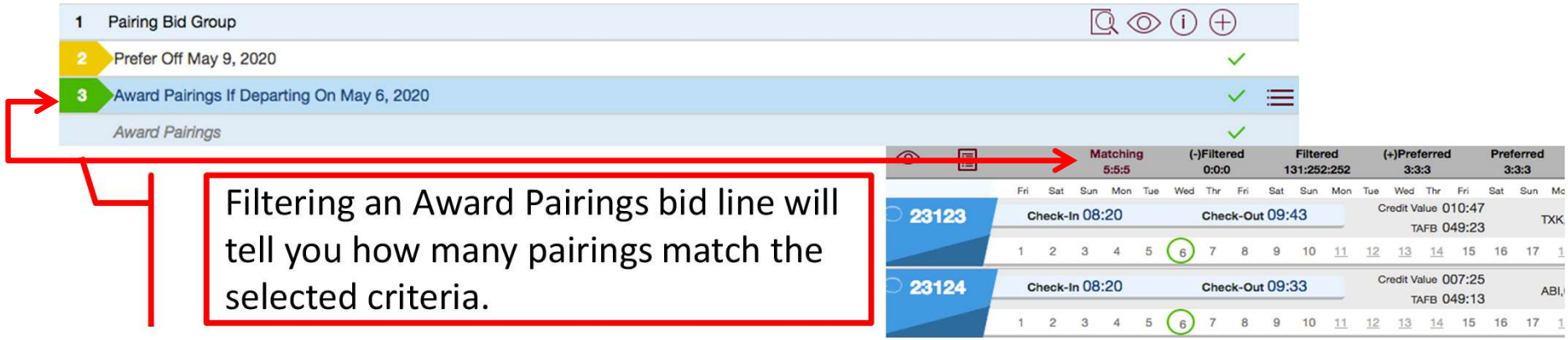


2. Click on a bid line to view the pairings that match the criteria on that specific line.

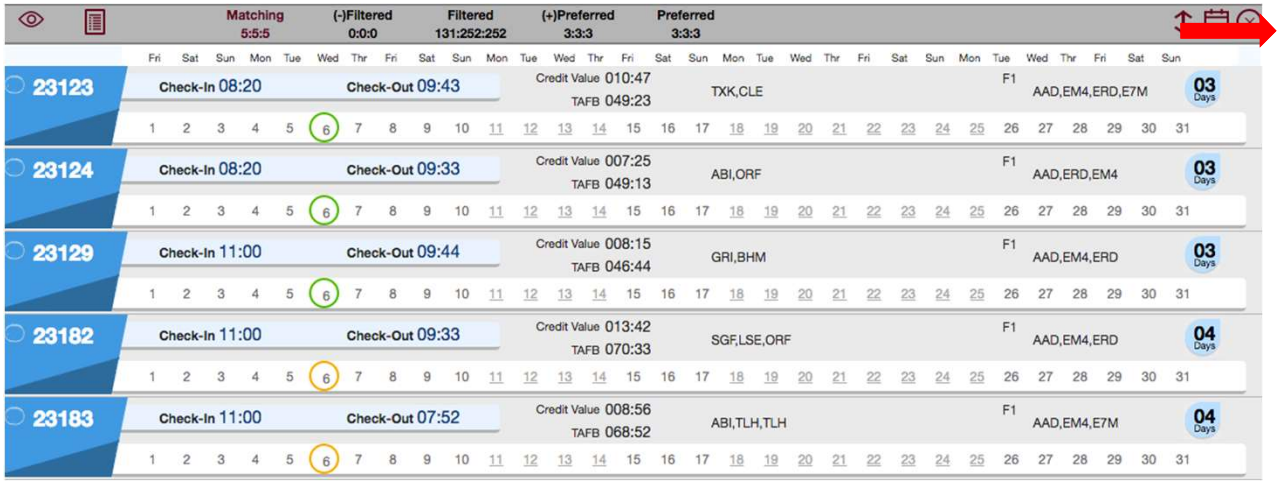
Filtering a Prefer Off bid line will tell you how many pairings conflict with the preferred day off



Analyzing a Pairing Bid Group



4. Click the expand button to view the results in full screen. The results are a list of pairings that match the bid group.



5. Click to close the Analyzer.

Analyzing a Pairing Bid Group

Matching	(-)Filtered	Filtered	(+)Preferred	Preferred
137:284:284	0:0:0	131:252:252	128:249:249	131:252:252

There are 3 sets of numbers below each heading **(137:284:284).** These numbers indicate the number of pairings, pairings on dates and pairing instances.

- Pairings – how many pairings match the bid preference **(137).**
- Pairings on dates – how many times the pairings operate in the bid period **(284)**.
- Pairing Instances – how many positions are available on the pairings in the bid period **(284)**.

Analyzing a Pairing Bid Group

Understanding the Results:

Matching	(-)Filtered	Filtered	(+)Preferred	Preferred
137:284:284	0:0:0	131:252:252	128:249:249	131:252:252

- **Matching** →how many pairings match the bid group.
- **(-) Filtered** →how many pairings have been removed by a negative bid preference. These pairings won't be awarded unless **denial mode** is used.
- **Filtered** → how many pairings are in the available pairing pool. This is the number of pairings that PBS Scheduler will consider when awarding your block unless **denial mode** is used.
- **(+) Preferred** → how many pairings have been added to the Preferred Pairing pool.
- **Preferred** → how many pairings are in the preferred available pairing pool. These are the number of pairings that match your bid preferences (what you have requested in your bid group).