N-PBS

Bidder‘s Guide 22-3

NAVBLUE ACADEMY

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N-Preferential Bidding Web App Bidder's Guide 22-3

This manual contains information on all versions of NAVBLUE N-Preferential Bidding Web App interface.

If you don't see the option on your interface that is described in this manual you don't have it

Welcome to the N-PBS Web App Bidder Interface!

Get started here.

What's new in this release? - click here for more information

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What's New in this Release

This page describes some of the new features in the N-Preferential Bidding 22-3 release. Not all features are available or applicable to all customers, if you don't see a feature described here on your screen you don't have it.

Browser Cache

NAVBLUE recommends that all users clear their browser cache before using N-PBS version 22-3. See your browser documentation for instructions on how to clear the cache.

Release Items

New Features

There are no New Features included in version 22-3 of PBS.

Enhancements

S-64211 AAY - Improve Schedule Report to Handle 6 to 9 character pairing numbers

This enhancement of the schedule report for a 31 day bid period allows 6 to 9 character pairing numbers to be displayed without being malformed.

S-62011 NKS - Configure Forget/Redo

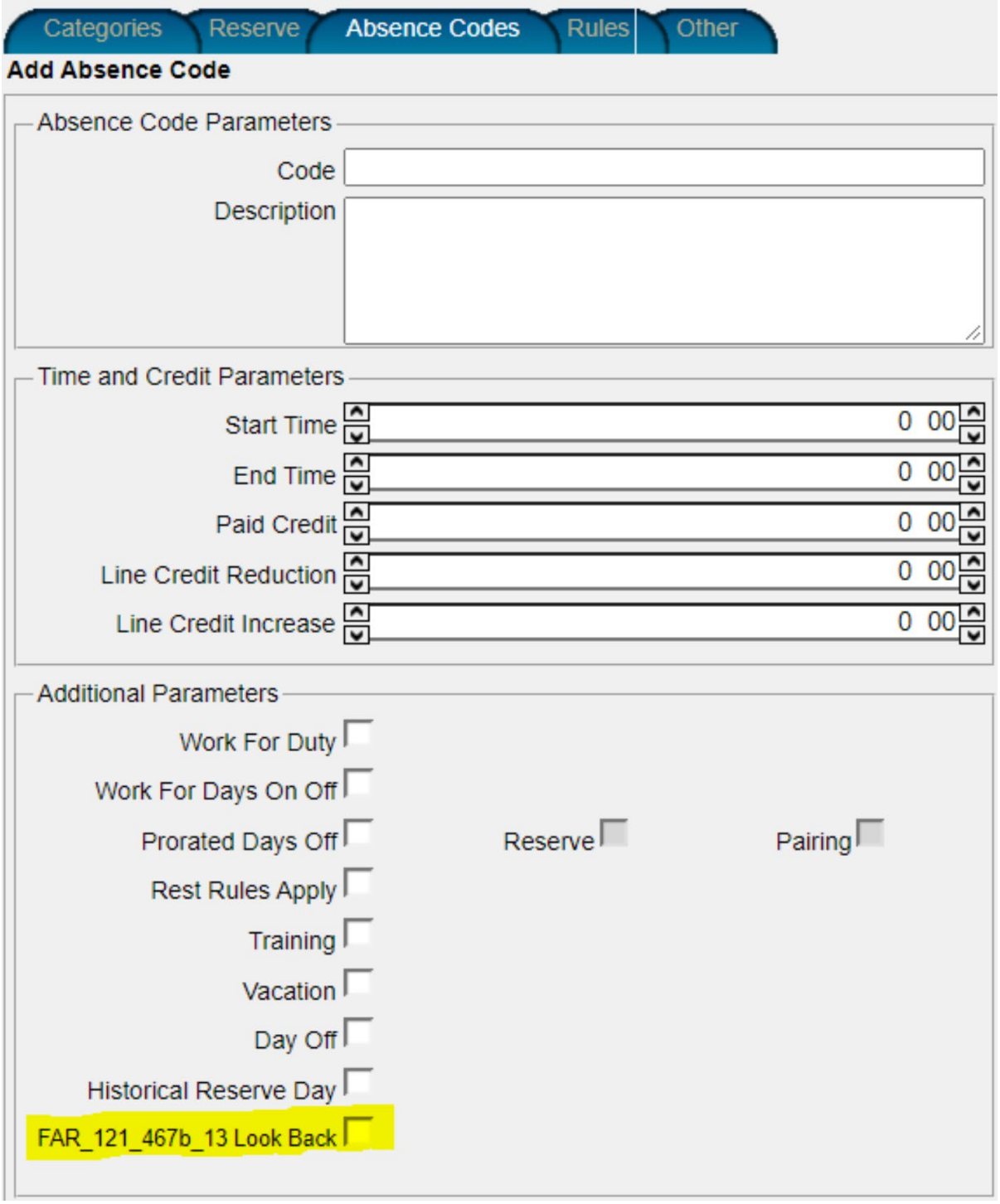
NKS is now configured for the Forget/Redo Bid functionality.

S-60078 QXE - Add Buddy Bid ID's

For QXE installs, Buddy Bidding IDs now appear in the Bid Manager Tab.

S-63204 QXE - Configure FAR 121.467b_13 Look Back

QXE installs are now configured for the FAR_121_467b_13_Look Back Flag.



S-63532 UCA - Configure Line Check Airmen Bid Preference

UCA systems are now configured for the Award/Avoid Line Checkairmen bid preference.

S-62004 CJT/POE/FLE - CAR 700.29(1)(c)(i)(ii) Max Number of Hours Worked (Rest) for Reserve

We've created two new CAR rules within PBS:

1. Updated Free From Duty rules:
    - 700.29 (1)(c)(i) 1 single day free from duty in any 168 consecutive hours; the lookback is from the end of any duty period including from the end of a reserve day.
    - 700.29 (1)(c)(ii) 4 single days free from duty in any 672 consecutive hours.
    - The rules include a parameter to allow administrators to apply a buffer (in minutes) to the hard rule. The buffer parameter is BufferMinutes.
2. The lookback is from the end of any duty period:
    - A single day is defined as a day between 2 local nights rest.
    - Local nights rest is defined as at least 9 hours between the hours of 22:30 and 09:30 acclimatized local time.
    - Lookback takes place from end of duties in pairings or absences with "work for duty flag" or reserve days on.
    - NAVBLUE assumes that acclimatized local night is defined using the crewmembers current acclimatized location at the beginning of the local night. For reserve rules, we assume a crewmember is acclimatized to base location throughout the period.

S-64566 ACA - Make Equipment/Position/LocationGroup Unstacking Configurable

For ACA, there are 4 new PBS settings:

1. Disallow Equipment Unstacking
2. Disallow Position Unstacking
3. Disallow Equipment Position Unstacking
4. Disallow Location Unstacking.

All are set to True. For any customer without these options, the system continues to offer these types of unstacking when one of these options is true:

- The relevant type of unstacking does not display on the run parameter screen.
- The relevant type of unstacking is not considered by the scheduler.

S-34554 RGA - Add Consecutive Reserve to Config

For RGA, we've added Consecutive Reserve Module to their Configuration.

S-60678 RGA - Reserve UDO Allocation

For RGA, we've added UDO functionality to reserve awards similar to pairing allocation.

S-60176 UCA - Enhanced Crew Roster Data Output Report

For UCA, we've configured the Crew Roster Data Output with the following additions:

- New field Total In-Period Block Time (will be output for all people in the file).

- A new field Unstacked, for each individual award appears on each individual award that is output, saying either "true" or "false". Unstacked Pairing and Reserve awards will read "true".
- New field Unstacked, for each person appears for each person overall, meaning "did this person get any unstacked award?".
- New field WindowType, for each person (will be blank for people that did not get a pairing line). Possible values are as below. These are all the WindowTypes used in PBS, but not all of these are relevant to JBU or UCA:
    - Normal
    - MinCredit
    - MaxCredit
    - OverSchedule
    - ReducedLowerLimit
    - ReducedRegularLine
    - MinCreditReducedRegularLine
    - MaxCreditReducedRegularLine
    - PureSplitDuty
    - MixedLine.

Note that the WindowType itself will not indicate if a person is ReducedBlock. Rather there is a separate existing field "UseReducedBlock". For example, if a person has

UseReducedBlock true and WindowType MinCredit, it can be derived that this person would have used the ReducedBlock MinCredit window.

An issue where BlockTimeSummaries were being output with no Name, and with Start and End DateTime being the current time (when the report was generated) is corrected to output Name "BlockTimeSummary", and to show the correct Start and End DateTime (of the BlockTimeSummary activity).

S-62340 ASA - Add Absence Code to Rules

For ASA, the absence codes parameter of all the six rules which all have lists of absence codes (including RT,DT,RQ, etc...) are augmented with the following training codes:

- FRP
- FQP
- FRF
- FQF
- FCTF

Bug Fixes

D-35806 AAY - Crew Activity Import (Absences) Incorrectly Applying Credit

Corrected an issue where the AAY Crew Activity Import File was applying out-of-period credit to the current bid period. For an any absence which does not overlap the period, the system ignores any value in the "Credit" (Field #7) field, including absences in the past and absences in the future.

D-35807 AAY - Crew Activity Import (Historical Pairings) Incorrectly Applying Credit

We corrected an issue when importing the Crew Activity File (Historical Pairings) where the system was applying previous period credit to the current bid period. For any non-biddable pairing AAY must provide a "00:00:00" value for credit. Should a credit value other than "00:00:00" be provided then the system displays a warning after the file import "Credit of <Value> was provided for historical pairing". Non-zero values are imported if provided.

D-08645 ALL - PBS Web App: Loading Animation in Pairings Tab is Missing

We corrected an issue where the animation informing the user that more pairings are being loaded did not appear, though the pairings still loaded. This only occurred when scrolling down; the animation was still present when scrolling up. The animation remains unaffected and is working in the Bids & Training tabs.

D-35220 N-OC Customers - N-OC pairing import fails if activity code has less than 2 characters

We've corrected an issue where the N-OC pairing import would intermittently fail with the error message "Internal error: exception thrown on Import Data Job" due to the string value having less than 2 characters.This error occurred on a line in the XML file with element: <ActivityCode>3</ActivityCode>.

The system now provides a detailed error message regarding this error.

Introduction

In some instances, how your bid looks, how bid groups are ordered, validated and processed varies on what type of Reserve module you have. See Reserve Types for information on how to tell what type of reserve you have.

This guide describes how use the NAVBLUE PBS interface to view bidding information, available pairings, create and submit bids and how to view your awards. It also provides information on the bid preferences available to you. The last section describes the processing logic behind NAVBLUE N-PBS (the N-PBS Scheduling engine) that processes your bids and awards pairings.

The NAVBLUE PBS interface allows you to customize your schedule according to your individual likes and dislikes. The NAVBLUE PBS interface and Scheduler form a Preferential Bidding System (N-PBS) that builds individualized crew schedules based on each crew member's preferences, including both likes and dislikes for flying, specific pairings, and days off.

The bids that you submit using the NAVBLUE PBS interface are submitted to the N-PBS Scheduler. Your bids and the rules, pairings, and other parameters in the N-PBS Scheduler added by your administrator are used to automatically build your flying schedule for the bid period referred to as a block.

The N-PBS Scheduler considers each crew member's seniority and bid when building schedules and ensures that the final schedule of time meet as many crew member preferences as possible, while also meeting legal requirements and the airline's targets for crew utilization and open time. Schedules are constructed strictly according to the seniority of each bidder, with the most senior bidder's block created first, and the most junior bidder's block created last.

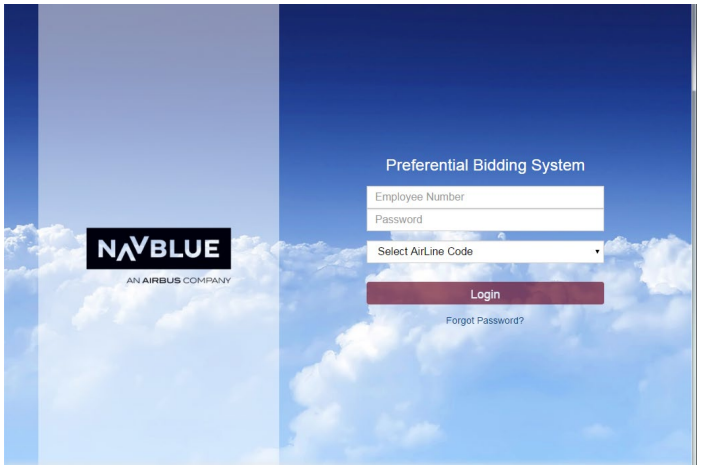
Along with your awarded pairings, the N-PBS Bidder provides a Reasons Report that identifies whether or not each bid preference was fulfilled, and also provides detailed explanations for awards and denials.

Log In

You will automatically be logged out of the application after 30 minutes of inactivity.

The Select Airline Code drop-down menu is only available if you have a multiple airline code setup. If you don't have a multiple code setup you won't see this menu.

Log In screen



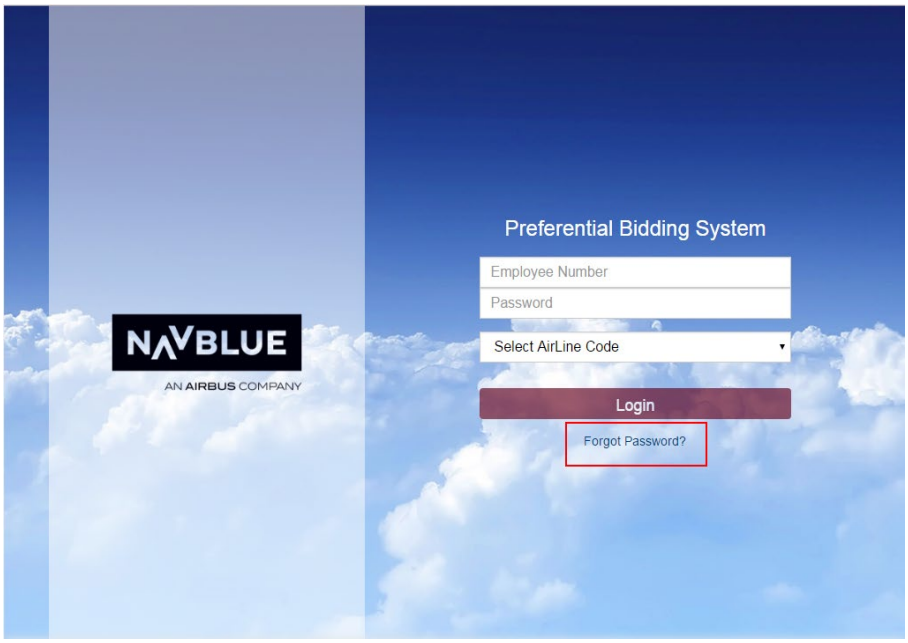
Enter your employee number and password to log in to NAVBLUE PBS interface.

Forgot Password?

To utilize the forgotten password feature you must register your e-mail, see register e-mail for more information.

If you forget your password click on the Forget Password link at the bottom of the screen.

Forgot Password screen

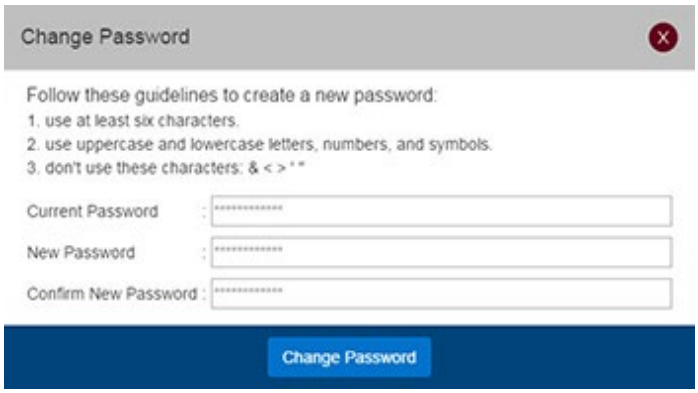


Enter your employee number and click the **E-mail Password** button.

Change Password

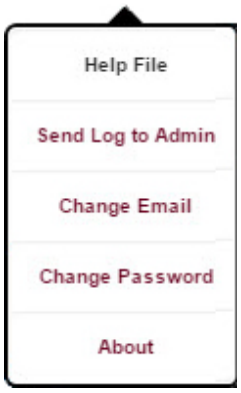
You can change your password at any time when you are logged in to the NAVBLUE PBS interface. You will be forced to change your password if it is the same as your employee ID.

change password dialog



To change your password:

1. Log in.
2. Click on the Help button to view a list of items.
3. Click on Change Password in the list.

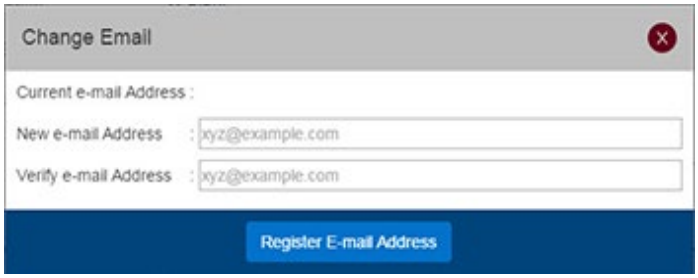


4. Enter your current password, your new password and confirm it on the Change Password dialog.
5. Click the **Change Password** button.

Register your E-mail

You can register your e-mail at any time when you are logged in to the NAVBLUE PBS interface. You can't use utilize the Forgot Password feature if you don't register your e-mail.

change e-mail dialog



To register your e-mail:

1. Log in.
2. Click on the Help button to view a list of items.
3. Click on Change Email in the list.
4. Enter your e-mail address and confirm it on the Change Email dialog.
5. Click the **Register E-mail Address** button.

Compatible Browsers and Devices

Mobile Devices

NAVBLUE N-PBS is tested on the following mobile devices, using either Safari or Chrome applications:

- iPad
- iPad Air
- iPad Pro
- iPhone Plus
- iPhone Pro

NAVBLUE N-PBS is tested only on the most recent versions of the following browsers:

- Chrome
- MS Edge
- Firefox
- Safari (on Macintosh computers running macOS Catalina)

Browser Settings

NAVBLUE N-PBS requires javascript, pop-up windows and cookies enabled in all browsers. See the browser documentation for more details.

Operating Systems

The N-PBS Admin and Bidder Interfaces are tested on the following operating systems:

- iOS 15.0
- Windows 10
- Catalina

Off-line and On-line Mode

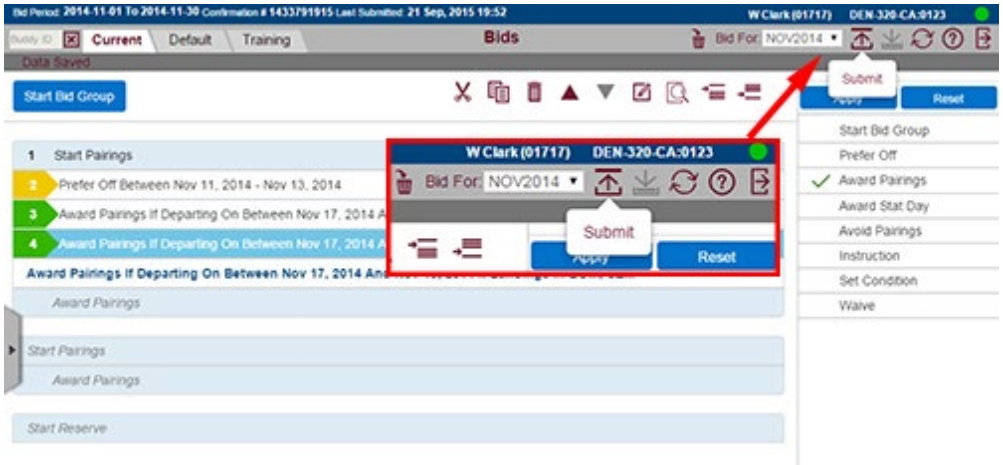
You can use the N-PBS Bidder to create your bid whether you are offline or online. However, before you can use it offline you must first log in with an internet connection to sync pairing and other bidding data (absences and carry-in information).

Multiple users can't use the NAVBLUE PBS interface on the same device, either on-line or off-line, unless they have synced their data.

Also, you cannot submit your bid until you have a connection. If you are offline, save your bid before logging out. If you are online you can save or submit your bid at any time.

On-line Mode

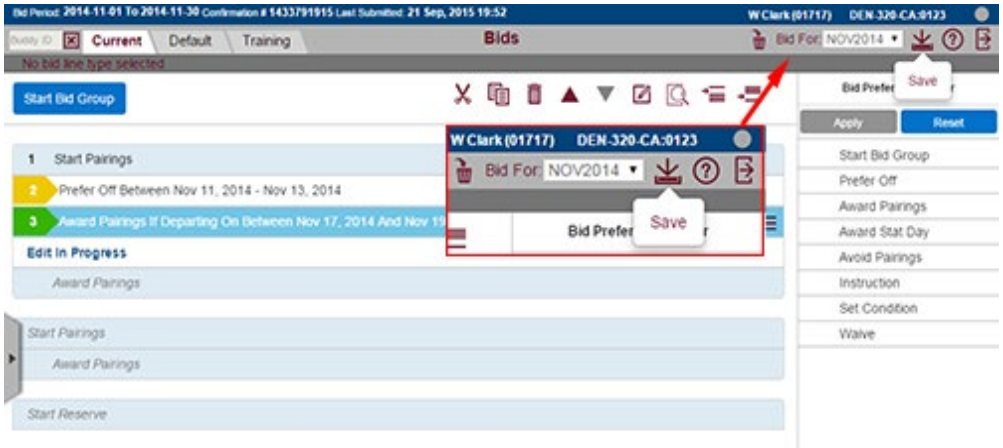
on-line Bids screen



When you are online the circle in the top right corner is green. When online the **Submit** and **Sync Data** buttons are available.

Off-line Mode

off-line Bids Screen



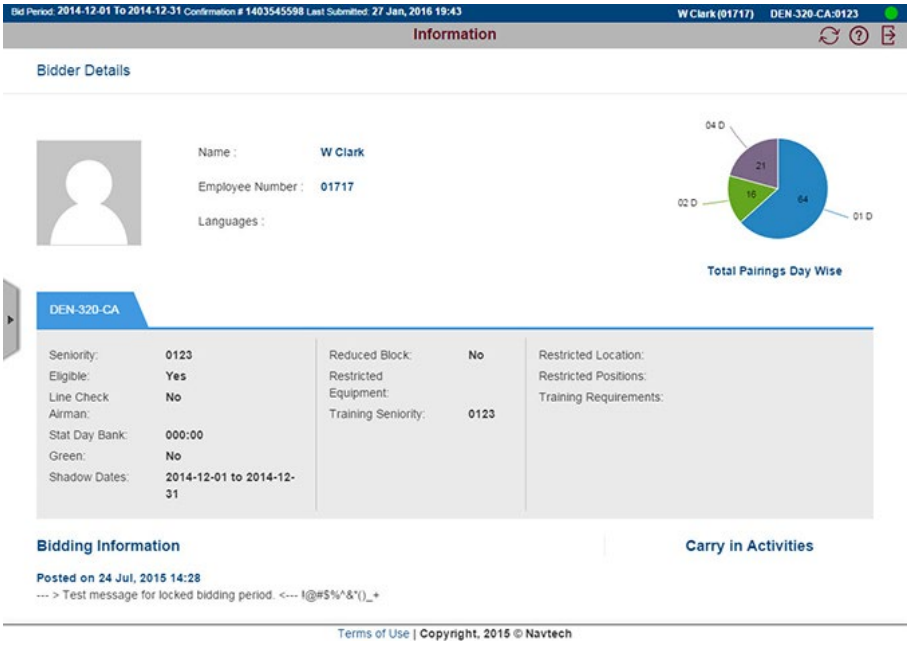
When you are offline the circle in the top right corner is gray. The **Submit** and **Sync Data** buttons are not available.

Use the **Save** button to make sure any changes you make to your bid are not lost. The **Save** button is only active if your changes are not saved. You are prompted to save any changes if you log out before saving your bid. It is important to log out of the bidding interface instead of closing the browser. There is no prompt to save your bid if you close the browser.

If you are offline you cannot change your password or email.

Navigation

When you log in you are taken to the Info screen, see Info screen for more information.



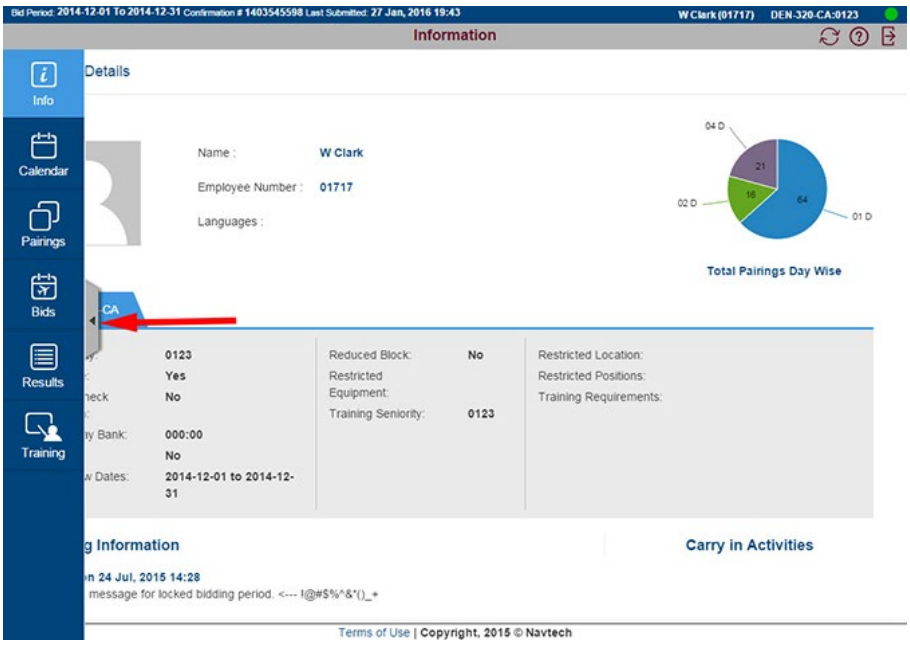
The top blue header is visible from any screen. It always displays:

- start and end of the current bid period
- confirmation number of your last bid submission
- date and time of last submitted bid
- your name, category and seniority number
- online status, see Off-line and On-line Mode for more information

The gray header below the blue header changes to display information based on the screen you are using. The buttons vary depending on the screen and if you are on-line of off-line, see buttons for more information.

Use the panel on the left side of the screen to navigate to a screen. Depending on the size of your screen or browser the panel may collapse. Click on the arrow to make the panel appear and click it again to collapse.

Info screen with navigation panel



Scrolling

There are no scroll bars on the NAVBLUE PBS interface, so if there is more information than can fit on the screen:

Windows or Apple PC

- right-click and hold mouse down

Touch Screen

- tap and hold on the screen and swipe down

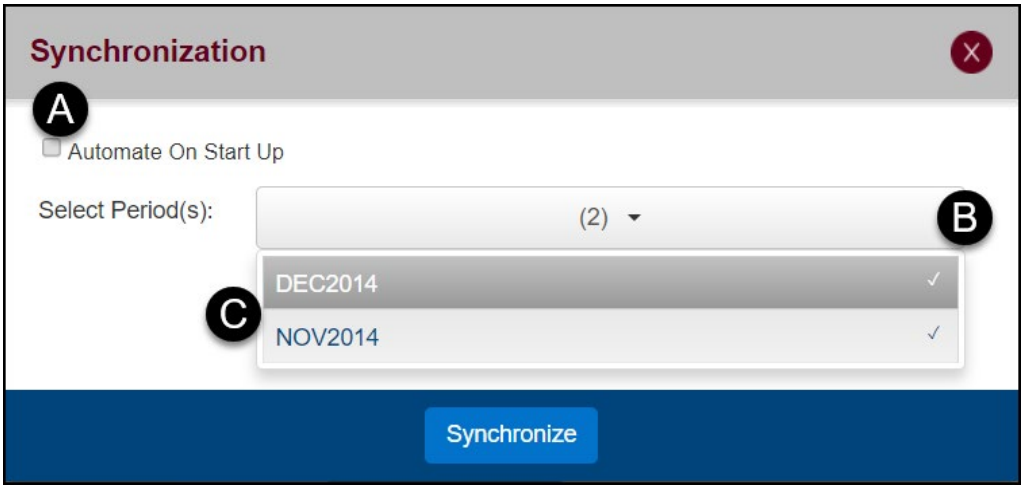
Data Synchronization

You must sync data the first time you use the NAVBLUE PBS interface. You can't use the NAVBLUE PBS interface without syncing data. Also, multiple users can't use the NAVBLUE PBS interface on the same device, either on-line or off-line, unless they have synced their data.

Synchronization ensures that bid period information is up-to-date while the bid period is open. After bidding is closed and awards are published you must synch data to view your published results.

If you are connected to the internet the synchronization dialog appears every time you log in. Provided you are connected to the internet, the Sync Data button is available on each screen.

Synchronization dialog



Automate on Start Up (A) - when selected, the synchronization process is automated and you don't have to click the Synchronization button. If you don't select this option

you must click the Synchronize button when you log in or press the Sync Data button. The Synchronization dialog will close automatically when finished.

To save this or any setting you must click the Logout button the first time you exit the application. If you close the browser instead of logging out your settings may not be saved.

Select Period(s) (B) - this lets you choose how many periods of data you want to sync.

Click on a period name (C) to select or deselect it from synchronization. The checkmark beside the name indicates that it will be synced.

Why sync past periods?

If you sync data from past periods you can see your bids and awards from previous periods. This can be useful when entering a current bid as you can see what you previously bid for and you can copy and paste bids from past periods.

Reserve Types

What type of reserve do you have? An easy way to determine what type of Reserve you have is to look at the system generated bid groups. The examples below show an empty bid, however the system-generated bid groups are always present. You cannot edit or delete these groups.

Reserve Call Type

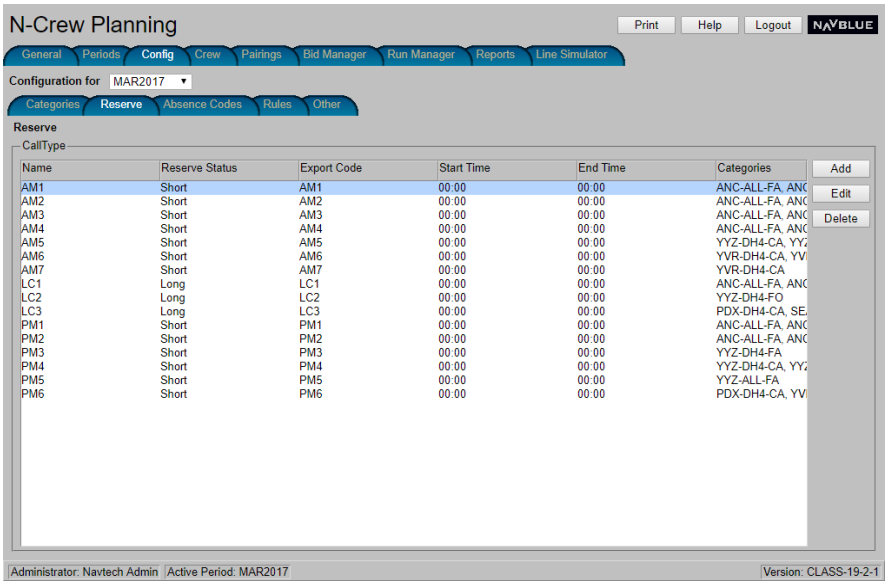
Reserve Call Types are added to each person with assigned reserve days, and are edited using the Administrator User Interface, under the Config tab and Reserve sub-tab.

Schedule reports can be produced, and they include the block of time for each activity (typically a pairing, reserve or absence), "Start Time" and "End Time" to the time range. Schedule reports are produced in PDF format, accessible through the Administrator User Interface.

Files can also be exported in a variety of formats for importing into the customer's Day-Of system. These export files indicate which Reserve Call Type was assigned to each person in addition to the Start and End times.

View Reserve Call Types

To view the configured Reserve Call Types, navigate to Config > Reserve in the navigation tabs:



Call Types are listed, along with the settings for each in the respective columns:

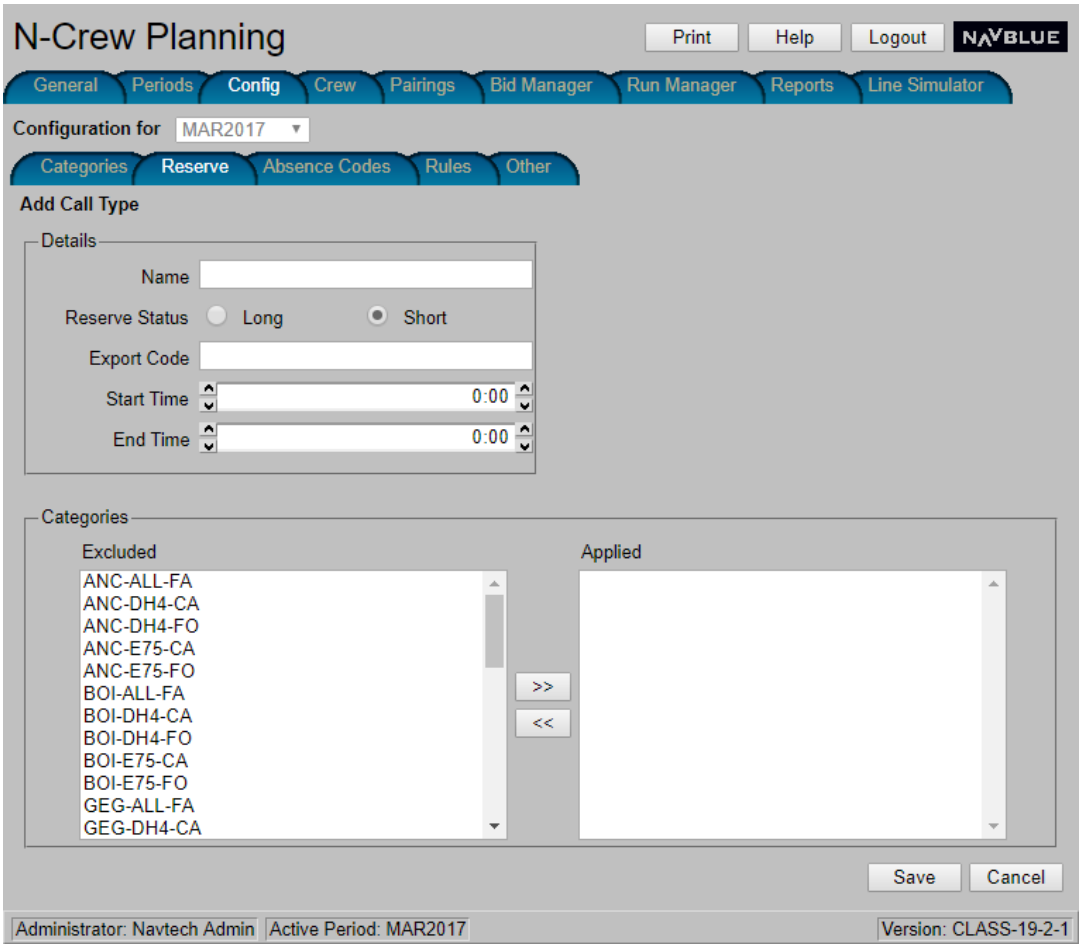
- Name
- Reserve Status
- Export Code

- Start Time
- End Time
    - Categories

Add a Reserve Call Type

To Add a Call Type:

1. Navigate to **Config > Reserve** in the navigation tabs
2. From the right side pane, select Add to add a new call type, or Edit to edit an existing Call type after selecting it from the main window. The Add Call Type function displays:



3. Enter the relevant information for the Call Type, or edit the pre-filled data:

   - Enter a **Name** for the call type of your choice.
   - Designate a **Reserve Status** by selecting either the **Long** or **Short** radio button of the respective choice.
   - Enter an **Export Code**.
   - Enter a **Start Time** or use the arrow buttons to step through time setting options.
   - Enter an **End Time** or use the arrow buttons to step through time setting options.

Note: If the Start Time field is "0:00" or "00:00", it is assumed this is the start of the day. If the End Time field is "0:00" or "00:00", it is assumed this is the end of the day. If the End Time field is not "0:00" or "00:00", the Start Time must precede the End Time.

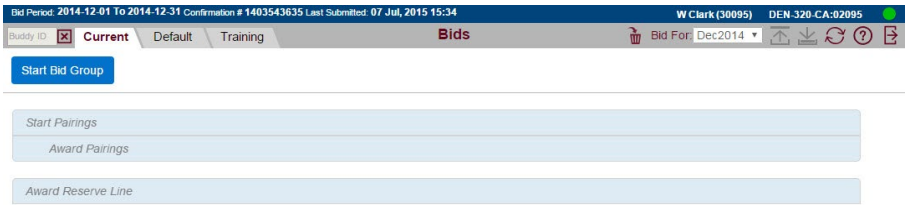
4. Apply **Categories** to the Call Type by using the double arrow buttons to move the desired category from the **Excluded** pane to the **Applied** pane.

5. Click **Save**.

Standard Reserve

With standard reserve, reserve blocks are built outside of the NAVBLUE N-PBS system. You can have multiple pairing bid groups.

When you first go to your Current Bid, you will see the following bid groups.



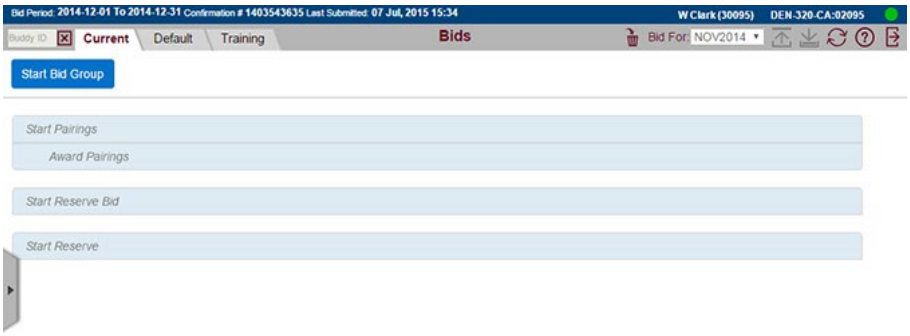
In Standard Reserve, the N-PBS Scheduler builds all pairing blocks first, in seniority order, for each crewmember that is awarded one. If you don't have a pairing block you are flagged as on reserve. Reserve blocks are built outside of the NAVBLUE N-PBS System. You can bid for a reserve block using the Award Reserve Line bid. Pairing bid groups must be placed above bids requesting a Reserve block.

You can have multiple Pairing and Award Line Reserve bid groups provided you have followed the restrictions set in place to ensure that your bid is processed correctly. See Bid Validation for more information.

Consecutive Reserve

With consecutive reserve, reserve blocks are built after pairing blocks. You can have multiple bid groups, but all Pairing Bid Groups come before all Reserve Bid Groups.

When you first go to your Current Bid, you will see the following bid groups.



In Consecutive Reserve, the N-PBS Scheduler builds all pairing blocks first, in seniority order, for each crewmember that is awarded one. If you don't receive a pairing block during the pairing awards processing you are flagged as on reserve. A separate Reserve run is completed by the N-PBS Scheduler to build each crewmember flagged as on reserve, in seniority order, a Reserve block.

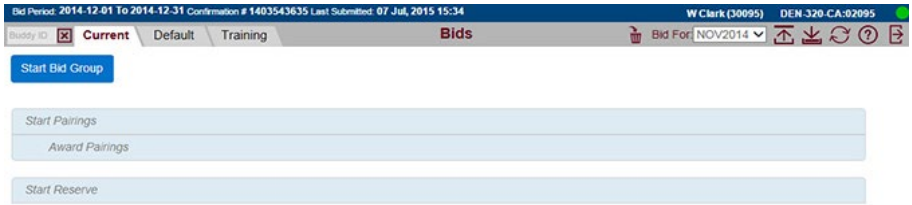
You can bid for a Reserve block using the Start Reserve bid bid group. Your Reserve block is built using the bid preferences inside of the Reserve bid group. Pairing bid groups are placed above bids requesting a Reserve block.

You can have multiple Pairing and Reserve bid groups provided you have followed the restrictions set in place to ensure that your bid is processed correctly. See Bid Validation for more information.

Concurrent Reserve

With concurrent reserve, reserve blocks are built at the same time as pairing blocks. You can have multiple bid groups (of each type) in your bid.

When you first go to your Current Bid, you will see the following bid groups.



In Concurrent Reserve, the N-PBS Scheduler builds pairing and reserve blocks, in seniority order, at the same time. You can have multiple bid groups, Pairing or Reserve in any order provided that you have followed the restrictions set in place to ensure that your bid is processed correctly. See Bid Validation for more information.

Buttons

The buttons on the top gray bar vary depending on what screen you are on and whether you are on or off-line.

The following table shows the buttons that are available from the top gray bar, a brief description of its function and screen location.

Button	Function	Screen
	Sync Data - loads the latest pairing and bid information.	All, if on-line
	Help - access help, send a log file to admin, change email and password, or see release info	All

	and version number.	
	Log out - log out of the application. Remember to log out instead of closing the browser to avoid losing changes.	All
	Download Schedule - download your calendar in the ics file format. The into a number of calendar programs such as Outlook, Google Calendar and Apple iCal. Downloading the ics file from the Safari browser is currently not supported. You can download the file from another source and import into iCal.	Calendar
	Switch to flat calendar view.	Calendar
	Switch to square calendar view.	Calendar
	Print - print pairing/training reports, bids, awards and Reasons Reports.	Pairings, Bids, Results and Training
	Show/Hide Info - choose the pairing information that is displayed.	Pairings, Bids and Training
	Select/Deselect all Pairings - you must select a pairing before you can view the pairing report. This button allows you to quickly select or deselect all pairings.	Bids,Training
Sort By: Pairing Numbe	Sort By - choose how you want the pairings listed. Options are: Pairing Number, Check In/Out Time, Credit Value, TAFB, L/O Stations, Positions, Equipment and Days.	Pairings, Bids and Training

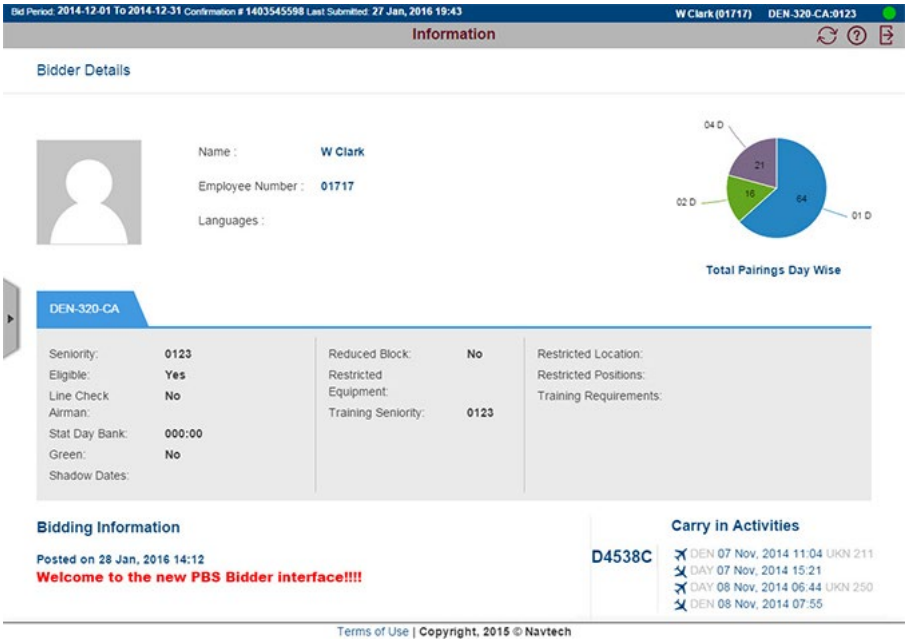
	Sort pairings in descending order	Pairings, Results and Training
	Sort pairings in ascending order	Pairings, Results and Training
	Bid for selected pairing - an award bid preference is added to your bid. The bid cannot be added if you don't have a Start Pairings bid group started. If you have multiple bid groups the bid is placed in the active Start Pairings bid group. The bid cannot be added if a Start Reserve bid group is active.	Pairings and Training
	Bid to avoid selected pairing - an avoid bid preference is added to your bid. The bid cannot be added if you don't have a Start Pairings bid group started. If you have multiple bid groups the bid is placed in the active Start Pairings bid group. The bid cannot be added if a Start Reserve bid group is active.	Pairings, Results and Training
	View the pairing or training report for the selected pairing or pairings. You must first select a pairing before viewing a report. You can select multiple pairings or use the Select All Pairings button.	Pairings, Results and Training
	Open the Pairing or Training Preferences editor. The Pairing/Training Preferences editor allows you to narrow your search based on most of your	Pairings and Training

	Award and Avoid bid preferences. If the screen on your device or monitor is large enough and you have your browser at full screen you may not see this button. On larger screens the Pairing/Training Preferences editor is always present.	
	Toggle between the dates view and pairing information view. See Information View and Dates View for more information.	Pairings and Training
	Delete All - delete your entire bid.	Bids and Training
Bid For: NOV2014	Bid For:- drop-down menu to change the bid period.	Bids
	Submit - submit your bid. You can submit your bid as many times as you want until bidding closes.	Bids and Training
	Save - save your bid. This does not submit your bid. Remember to log out instead of closing the browser to avoid losing changes. All changes are lost if you close the browser before saving changes.	Bids and Training
Results For: Nov2014	Results For: - use the drop-down menu to view results from past periods.	Results

Info Screen

The info screen is the first screen you see when you log in.

Info screen



The Info screen contains important information that can assist you when you are creating your bid. This page breaks the Info screen into the 4 main sections.

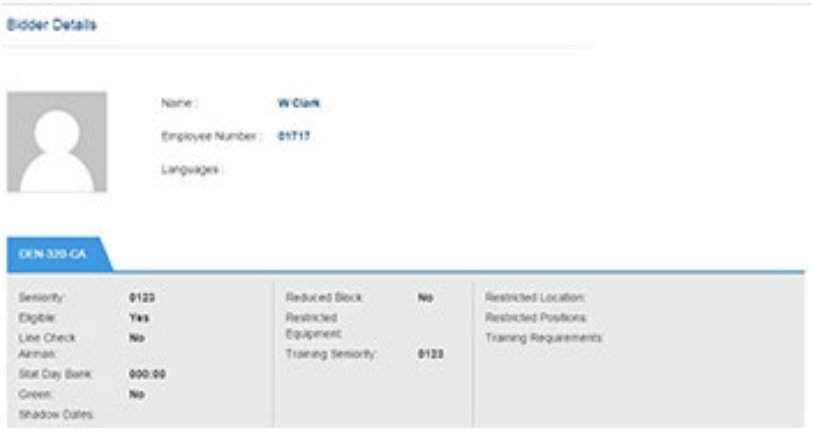
Bidder Details

Pairing Distribution

Bidding Information

Carry-in Activities

Bidder Details

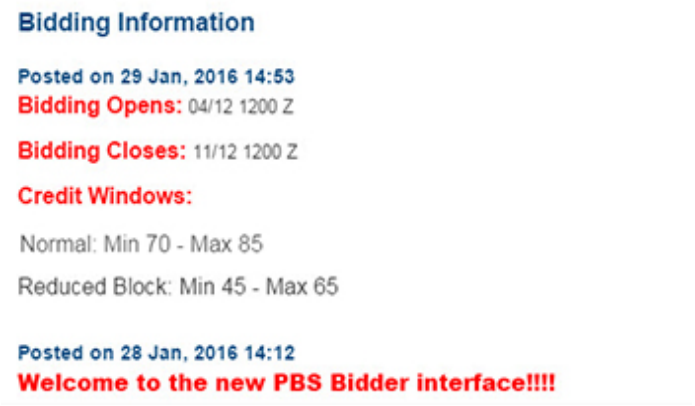


This section is all about you. It contains all of your information as it pertains to bidding. The information displayed here varies based on your company's requirements. Contact your administrator if anything is incorrect or if you have further questions.

Pairing Distribution

The pie chart gives you a quick glance at pairing distribution for the active bid period. Pairings are broken down by length in days. In this example there are 64 one day pairings, 16 two day pairings and 21 four day pairings.

Bidding Information



This section is controlled by your administrators. Your administrators, using the Admin interface, have the ability to post messages they want to convey to you.

Upcoming Activities

This section displays a list of up to five of your next activities.

Calendar Screen

The Calendar screen displays your activities for the month and your rolling 365 day total block value (if you have it configured). These can be carry-in or in-period activities (pairings, training, vacation, etc...). Absences and pairings are labeled.

These activities are imported by your administrator prior to the open of the bid period. You should view your calendar before you create your bid, however you can see what days are unavailable to you when you are searching and bidding for pairings.

You can view your awards once your administrators have published them.

Top Gray Bar

See Buttons for a list of the buttons on each screen and their function.

The gray bar near the top of the screen displays the date and includes the total in-period credit for the current bid period.

gray bar

There are two calendars on the Calendar screen, and horizontal and vertical one.

Horizontal Calendar

The horizontal calendar runs along the top of the screen. Dates that have pairings and absences are circled, pairings have a blue background and absences have a yellow background. The arrows beside the bid period date allow you to move to different bid periods.

horizontal calendar

Square or Flat Calendar

The calendar gives you two views to see more information on the activities assigned to you. It displays the start and end time of the activity and its credit. Carry-in activities display total and in-period credit. You can click on the pairing number or the icon beside it to view the pairing report. Your rolling 365 day block is displayed below each date. This information is imported by you administrator and may be a 0 if it doesn't apply to your operation.

Toggle Calender View

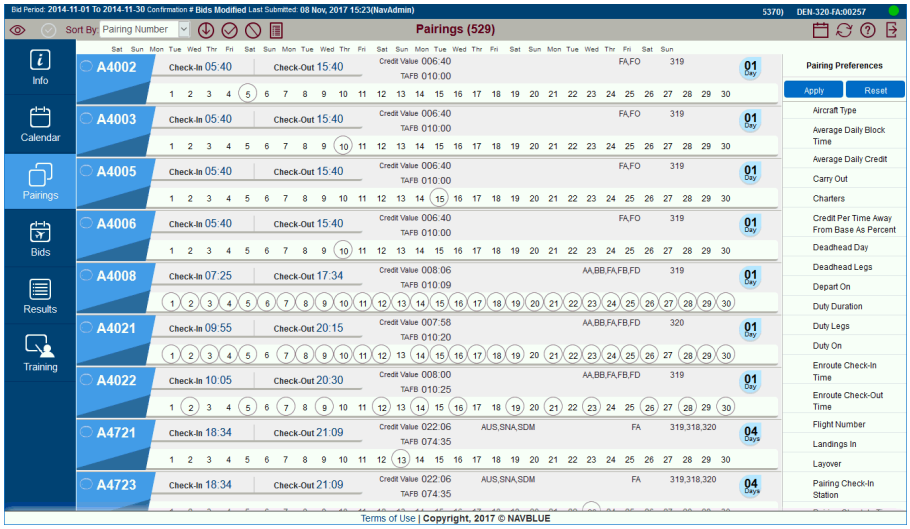
The first button in the row lets you choose how you want the calendar to display. You can toggle between views at any time when you are on the calendar screen. See Buttons for a list of the buttons on each screen and their function.

vertical calendar

Pairings Screen

See Buttons for a list of the buttons on each screen and their function.

Pairing Screen



You can customize the pairing information that is displayed. You can view the information that is relevant to you in making your decision to bid for or avoid a pairing.

Search for Pairings

To search for pairing filters:

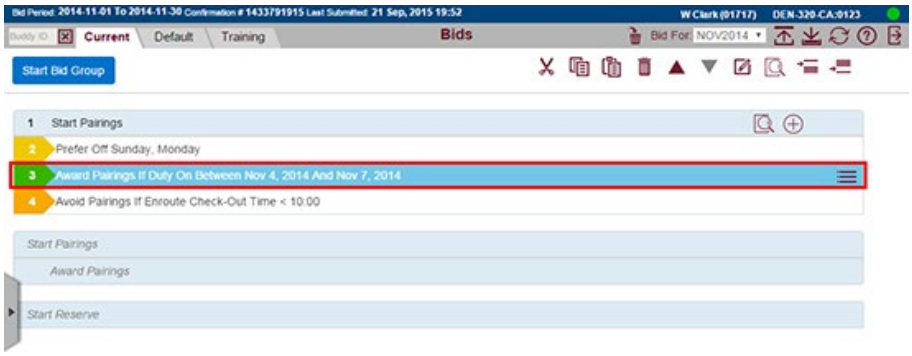
1. Click on the show filter button if you can't see the Pairing Preferences editor.
2. On the **Pairing Preference** editor select your search criteria. See Pairing Preference Editor for more information.
3. Click **Apply** to search for pairings
4. Click **Reset** to perform another search.

Before you Can Add Bid Preferences from the Search Screen

You can bid for or avoid pairings from the Pairing search screen.

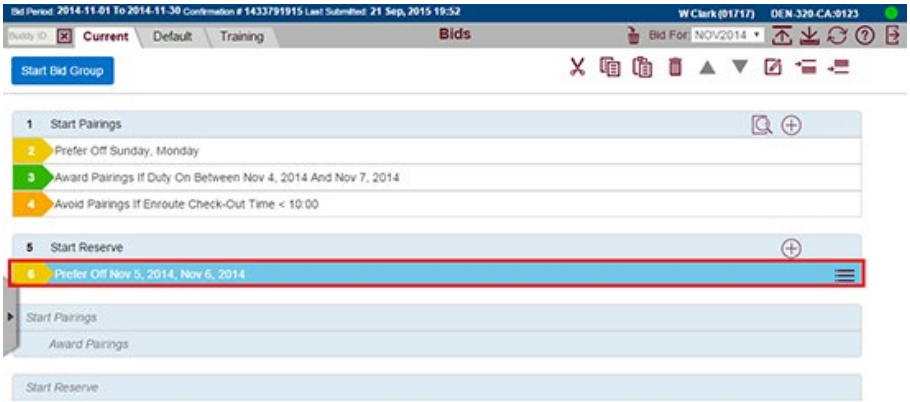
Before you can add a bid you must have an active **Start Pairings** bid group in your bid.

active Start Pairings bid group



The blue highlighted bid indicates that it is the active bid group (highlighted by red box in the screenshot). Click on the bid 1, Start Pairings to highlight the entire bid group. If you have multiple Start Pairings bid groups the bid is entered in the active one below the highlighted bid.

inactive Start Pairings bid group



The inactive Start Pairings bid group screenshot shows an inactive Start Pairings bid group. The first bid in the Start Reserve is highlighted blue (shown with red box).

The following error message is displayed if you attempt to add a bid without an active Start Pairings bid group.

Your current bid selection is not compatible with new Award/Avoid Pairings Bid Preference. Please adjust your selection and try again.

Add a Bid from the Search Screen

You have two options, you can add a bid preference that has the same options as your search or you can add a bid preference with pairing numbers returned from the search results. This topic shows how to add a bid preference using both options.

You can add bids to your Current, Default or Training bid.

To add an Award of Avoid Bid:

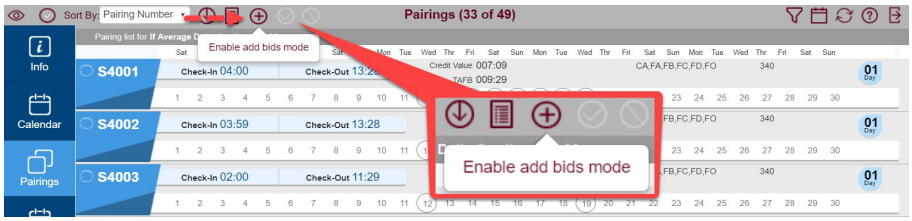
1. Add a Start Pairings bid group from the Bids screen. See Before You Can Add a Bid for important information before adding a bid from the Search screen.
   - Select a bid in the Start Pairings bid group. The bid preference selected is highlighted blue. The new bid preference is added below the highlighted bid.
2. Go to the Pairings screen.
3. Perform a search using any options you choose (you don't have to perform a search to bid for pairing numbers).

Add a bid preference with search options

If you want to add a bid preference with pairing numbers skip to step 8.

4. Click on the red plus button beside the grey Award and Avoid buttons in the top menu bar.

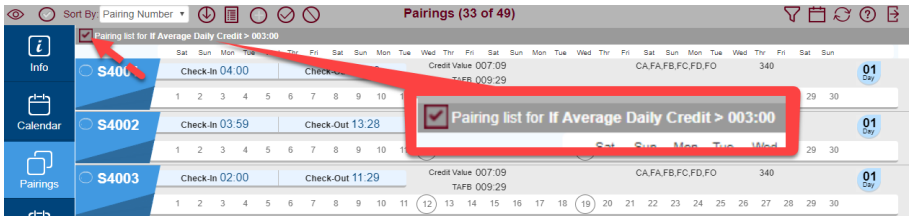
enable add bids mode button



Clicking on the enable bids mode button enables add bids mode and the Award and Avoid buttons beside it. When bids mode is enabled, the red plus inside of the button becomes grey. Also when you enable bids mode a checkbox is displayed beside your search options. The default is disabled, you must click on the check box to add a bid preference that contains the search options. The grey checkmark turns red when enabled.

5. Click on the checkmark beside the search options displayed.

red checkmark indicates a bid preference with search options can be added

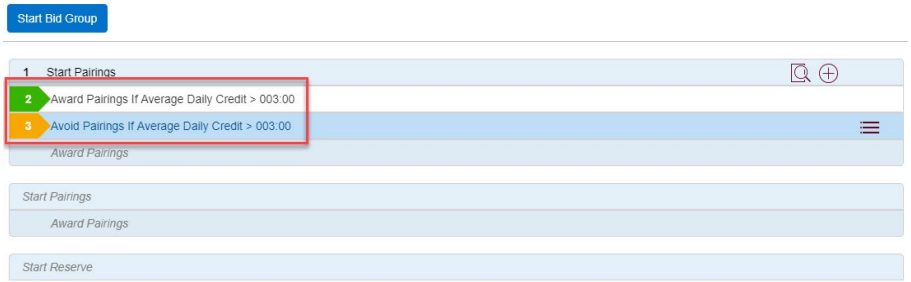


6. Click on the Award button to add an `Award Pairings If Average Daily Credit > 003:00` bid preference. A confirmation message, with the bid preference that has been added, is displayed. Read the message to ensure the bid preference you want is added. Click OK to continue.

or

7. Click on the Avoid button to add an `Avoid Pairings If Average Daily Credit > 003:00` bid preference. A confirmation message, with the bid preference that has been added, is displayed. Read the message to ensure the bid preference you want is added. Click OK to continue.

bids added to Start Pairings bid group

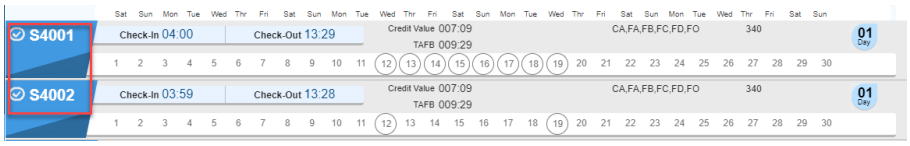


Add a bid preference with pairing numbers

If you haven't performed a search you can start at step 10. Please take note of step 9 if you have performed a search.

8. Enable add bids mode, see step 4.
9. Make sure that the checkbox beside the search options is disabled (grey). Click the checkmark beside the search options, if it is enabled (red, see step 5). The checkbox must be disabled, grey to add a bid preference with pairing numbers. If the checkbox is enabled and you select a pairing number the bid with search options will be added.
10. Click the circle beside a pairing number. You can select one or multiple pairings.

pairing selected



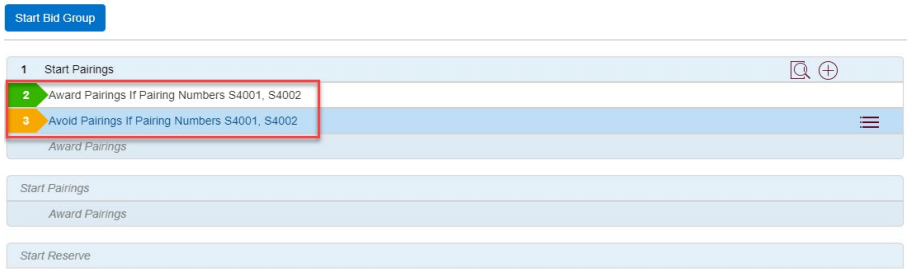
11. Click on the Award button to add an `Award Pairings if Pairing Numbers XXX` bid preference (XXX being the pairing number you selected). A confirmation message, with the bid preference that has been added, is displayed. Read the message to ensure the bid preference you want is added. Click OK to continue.

or

12. Click on the Avoid button to add an `Avoid Pairings if Pairing Numbers XXX` bid preference (XXX being the pairing number you selected). A confirmation message, with the bid preference that has been added, is displayed. Read the message to ensure the bid preference you want is added. Click OK to continue.

A confirmation message is displayed to let you know that the bid has been added.

bid added to Start Pairings bid group



Add a Pairing Number Departing on Date Bid from the Pairings Screen

You must have the Pairing On Dates bid to add a pairing on date from the Pairings screen. If you don't have the bid you can't click on a pairing on date in the pairing report. See add a bid from pairings screen for instructions on how to add bids from the Pairings screen..

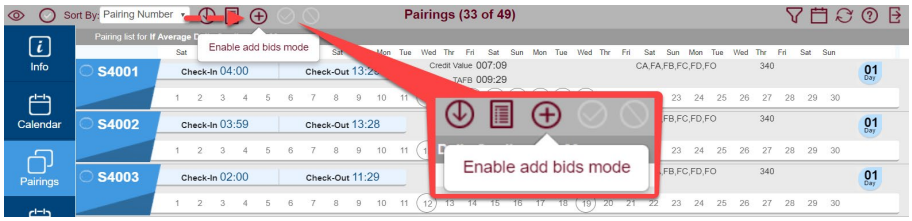
You have two options, you can add a Pairing Number Departing On Date bid preference or you can add a bid preference with pairing numbers returned from the search results (see add a bid from pairings screen). This topic shows how to add a Pairing on Date bid preference.

You can add this bid to your Current and Default bid.

To add an Award of Avoid Bid:

1. Add a Start Pairings bid group from the Bids screen. See Before You Can Add a Bid for important information before adding a bid from the Search screen.
   - Select a bid in the Start Pairings bid group. The bid preference selected is highlighted blue. The new bid preference is added below the highlighted bid.
2. Go to the Pairings screen.
3. Optional, perform a search using any options you choose to narrow down the number of pairings in the list.
4. Click on the red plus button beside the grey Award and Avoid buttons in the top menu bar to enable **Add Bids Mode**.

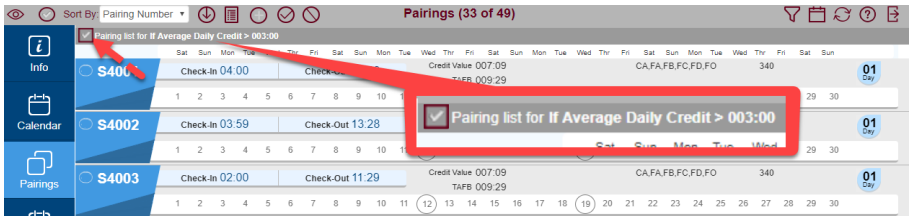
enable add bids mode button



Enabling **Add Bids Mode** enables the Award and Avoid buttons beside it. When Add Bids Mode is enabled, the red plus inside of the button becomes grey and a checkbox is displayed beside your search options. The grey checkmark turns red when enabled.

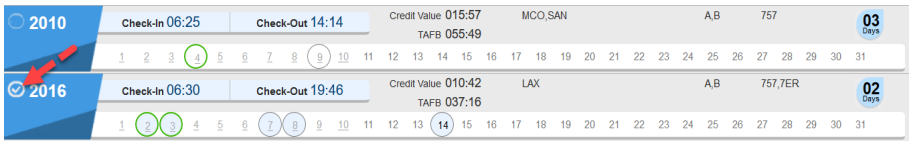
5. Disable the pairing filtered award checkbox. The checkmark inside the box is grey when disabled. If you don't disable the checkbox, the bid with search options is added. This box is only displayed if you have performed a search.

grey checkmark indicates that it is disabled



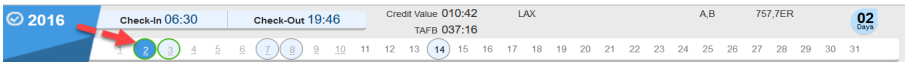
6. Click the circle beside a pairing number that you want to bid for. You can select one or multiple pairings. Notice that the background on the circled dates in pairing number 2016 has a different color than pairing number 2010. This indicates that you can click select it. The green circle indicates that it matches the search criteria.

pairing selected



7. Click on a pairing on date in the pairing report for the pairing you selected in step 6. Note: If you don't complete step 6 you cannot select a pairing. Once a pairing date is selected its background becomes darker.

pairing on date selected



8. Click on the Award button to add an `Award Pairings If Pairing Number XXXX If Departing On Date XXXX` bid preference. A confirmation message, with the bid preference that has been added, is displayed. Read the message to ensure the bid preference you want is added. Click OK to continue.

or

9. Click on the Avoid button to add an `Avoid Pairings If Pairing Number XXXX If Departing On Date XXXX` bid preference. A confirmation message, with the bid preference that has been added, is displayed. Read the message to ensure the bid preference you want is added. Click OK to continue.

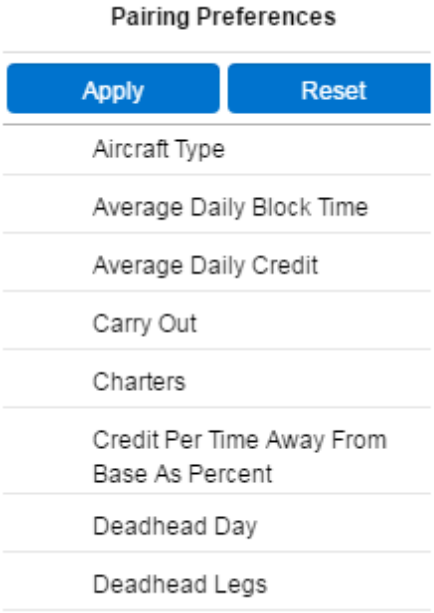
bids added to Start Pairings bid group

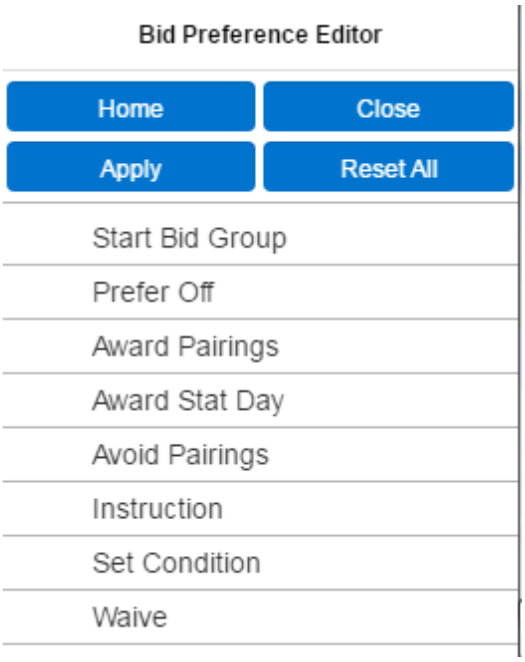
Pairing/Bid Preference Editor

This section describes how to enter criteria to search for pairings and add bid preferences. For information on how to search for pairings or add a bid, see Search for Pairings or Add a Bid.

There are many ways to enter criteria for searches and to add options to your bid preferences. This list doesn't cover all of the bid preferences but it does cover all of the methods that you will require to enter criteria.

When you open the Pairing Preferences editor on the Pairings screen or the Bid Preference Editor on the Bids screen you will see the list of options to either start a search or add a bid group or bid preference.





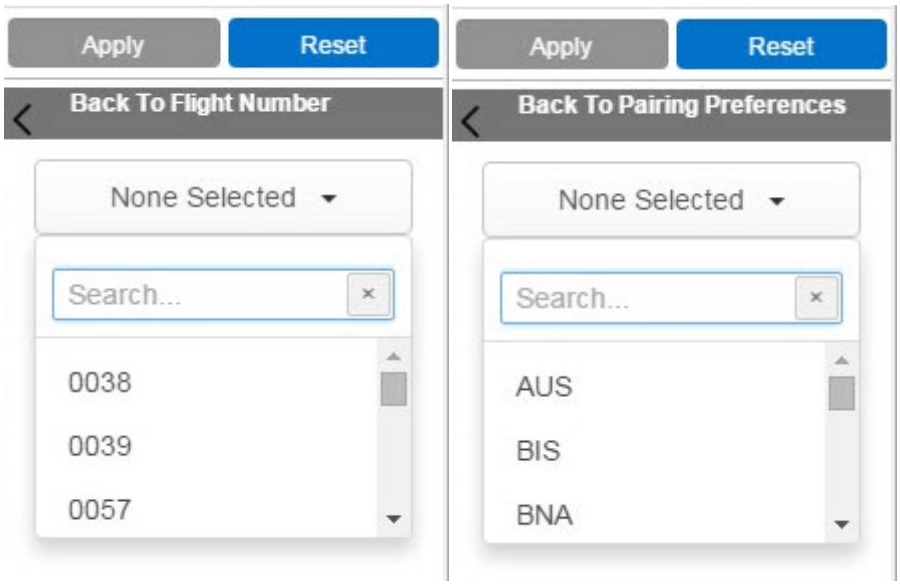
The **Home** button returns you back to this list but it leaves your last selection checked. If you were adding a Prefer Off bid you would come back here with it selected.

The **Close** button closes the Bid Preference Editor.

The **Apply** button performs your search or adds your bid preference. The **Apply** button remains gray until you have entered the proper criteria. Red text at the top of the bid explains what criteria you are missing to search or add a bid. On the pairing screen, white text, above the list of pairings explains what criteria you are missing to perform a search. For example if you want to search for or add Depart On dates and haven't entered any dates you cannot select the **Apply** button. When the **Apply** button is blue you can click on it to add the search criteria or bid.

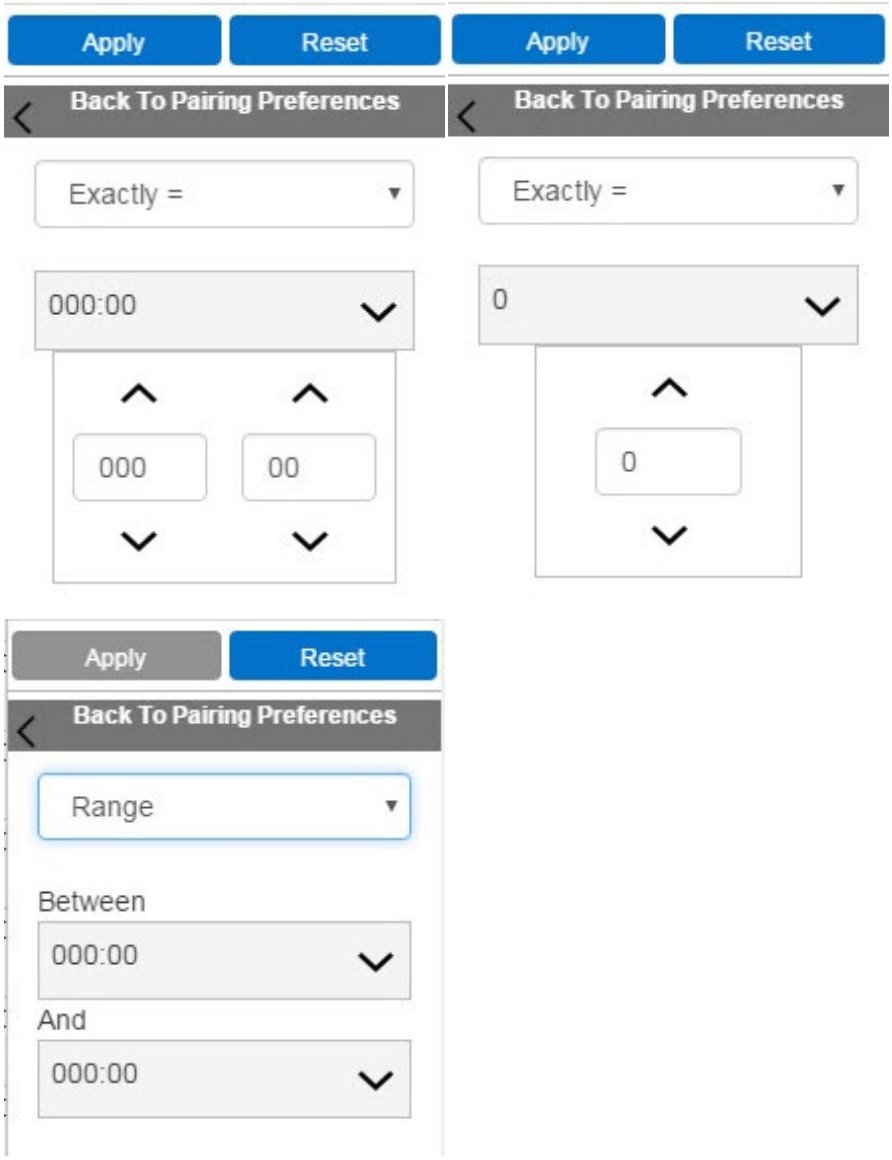
The **Reset All** button returns you back to this list but it removes your last selection checked.

Entering Criteria in Search Fields



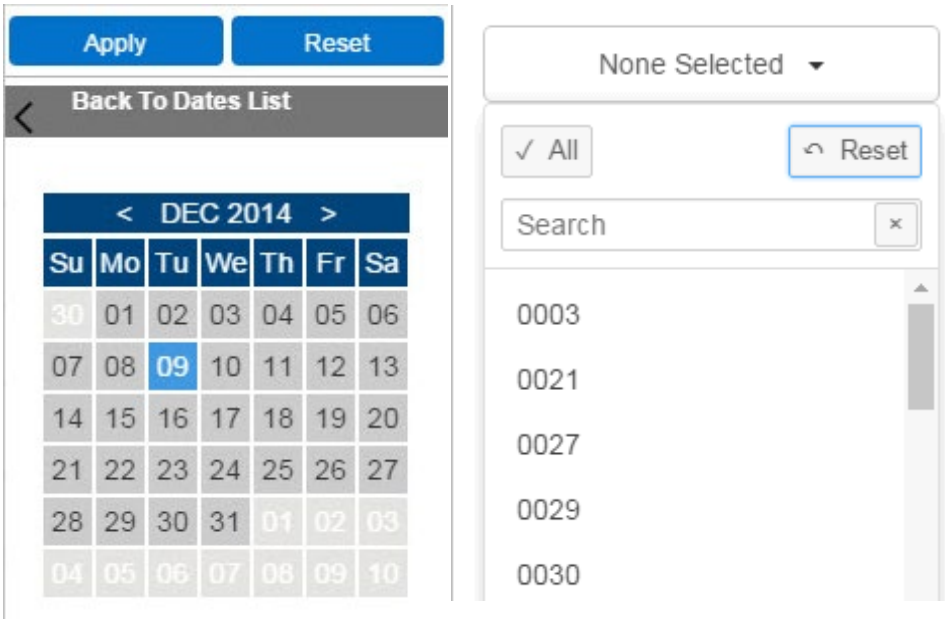
Results are returned as you enter numbers or text in the search field. Click on item in the list to add it. You can click on multiple items.

Times and Numbers



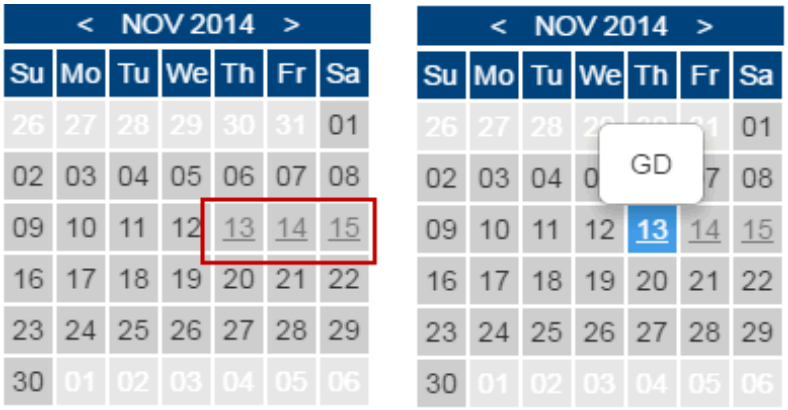
Use the arrows to move numbers up or down or type directly in the field.

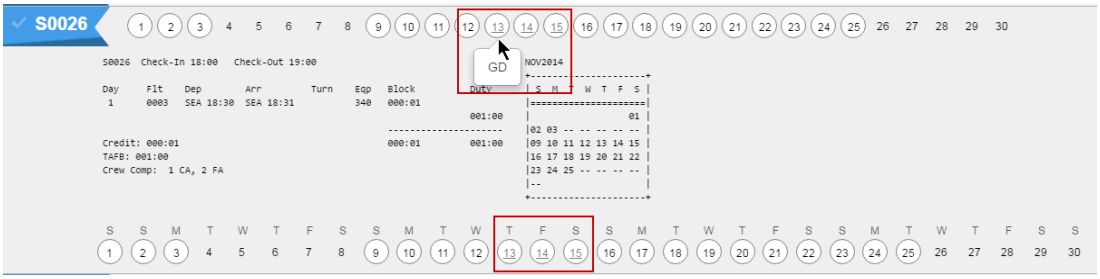
Calendar and Lists



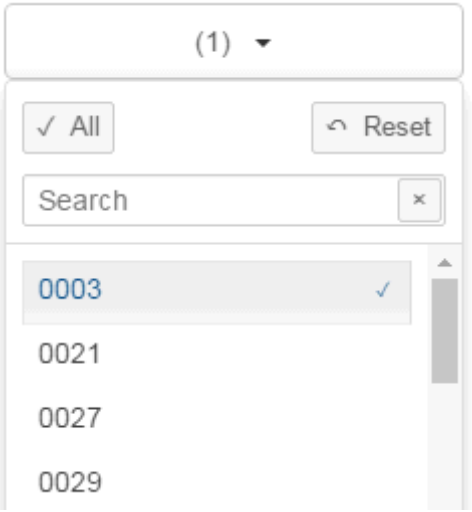
Click on a date to add a single date. Click on a start and end date to add a range of dates. Click on the day of the week to add a single day or the week. Click on a start and end day of the week to add a range.

Dates with Activities - Dates where you have an assigned activity are underlined and greyed out. You can tap or move your mouse or an activity to view the activity code.





Click on the header above the list (labelled None Selected in the screenshot above) to open the list. Click on an item in the list to select it. As you click on items the number of items selected will replace the text None Selected text and the item selected will be highlighted and have a checkmark beside it. You can remove a single item from the list by clicking on it again or you can click the **Reset** button to remove all items. Click **All** to select all of the items in the list.

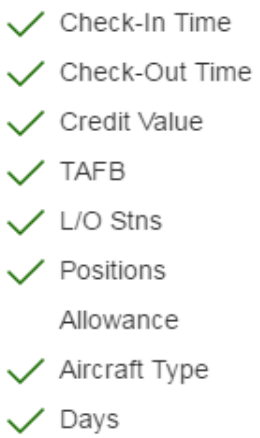


Show/Hide Information

See Buttons for a list of the buttons on each screen and their function.

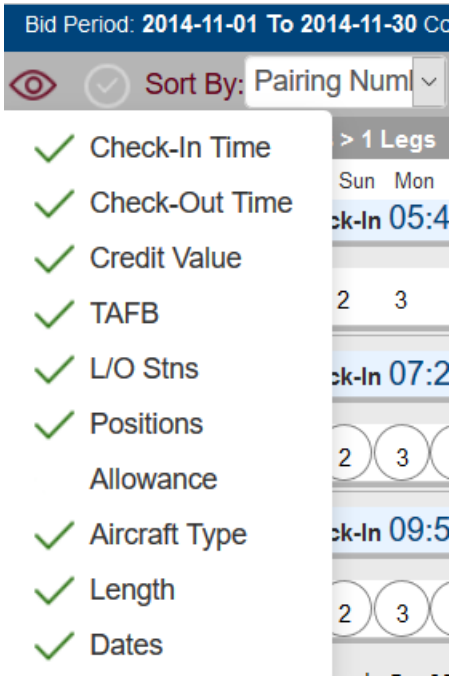
When you are in the Information view you can choose the pairing information you want to display. Click on the Show/Hide Info button to change the information displayed. When you click on the button the panel (shown below) is displayed.

Show/Hide Panel



The green arrow indicates that the information is currently displayed. Click the green arrow to hide the information. No check mark beside an item indicates that the information is not currently displayed. Click beside the item to display it in the information view.

Sort Pairings



You can choose to sort pairings by Pairing Number, Check-In Time, Check-Out Time, Equipment, or Days. Use the **Sort By**: drop-down menu to make your selection.

When you have your list of pairings you can sort them in ascending or descending order.

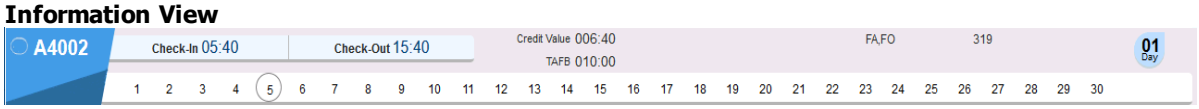
Sort pairings in descending order.

Sort pairings in ascending order.

Information View and Date View

You can switch between a table and date view on the Pairing screen. The information view gives you a more detailed look at the pairing while the date view lets you know what day the pairing starts. You can customize what you see in the table view, see customize the table for more information.

Information View



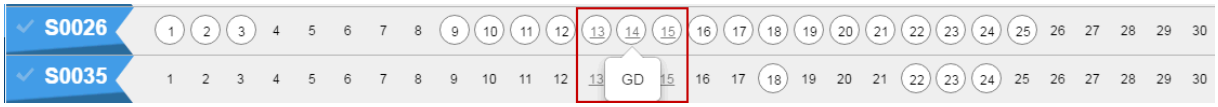
Dates View

The dates view shows you the start date of the pairing. Pairing D4004 starts every day except the 31st, this is indicated by the circle around the date. If you look at the screen shot you can see that the dates on the 1st and 2nd are grayed out. This indicates you are unavailable for these dates, either absence, training or carry-in. Your calendar also displays the dates that you have activities.

Use the calendar button to toggle between the information and dates view.

Dates with Activities - Dates where you have an assigned activity are underlined and greyed out. You can tap or move your mouse or an activity to view the activity code.

Dates with Activities



View Pairing Reports

To view pairing reports in the list of pairings:

Click on a pairing number.

Click on multiple pairing numbers to view multiple reports. Click on the pairing number again to collapse the report.

To view pairing reports on a new screen.

Click on the white check mark beside a pairing or multiple pairings.

Click on the Pairing Report button .

The report or reports for the selected pairings open in a new window.

Dates with Activities - Dates where you have an assigned activity are underlined and greyed out. You can tap or move your mouse or an activity to view the activity code.

Dates with Activities

Bids Screen

The Bids screen is where you enter and submit your bid.

bids screen

For more information on bidding, see:

Add a Bid

Edit a Bid Group or Bid Preference

Bid Screen Buttons

Before Entering a bid you may want to review:

Reserve Types

Bid Types

Bid Types

There are 3 bid types Current, Default and Training. The background color varies based on the type.

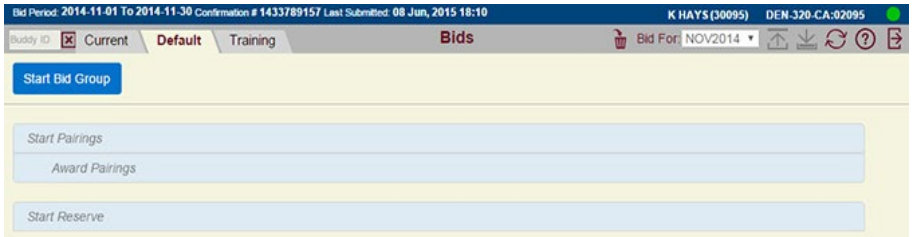
Use the tabs to switch between the Current, Default and Training Bids.

Current Bid

You can edit and submit your Current bid while the bid period is open. The current bid has a white background. You can submit your Current bid as many times as you want while bidding is open.

Default Bid

You can edit and submit your Default bid at any time, as many times as you want, unless your administrator has locked the system. The Default bid has a yellow background.



Typically a Default bid is used if don't plan on submitting a Current bid every month. Your Default bid carries over from month to month if you don't submit a Current bid. Bid preferences are typically a little more generic in Default bids. For example, instead of bidding for specific dates off you may bid for days of the week off. If you bid for

specific dates it is only used in the month it is applicable. For example, the bid, `Award Pairings If Depart On July 25, July 26` is used only in July, in other months it is ignored.

It is also a good idea to have a default bid submitted as a back up in even if you plan on submitting a Current bid every month. This will ensure you have a bid submitted in case you forget to submit one for the current period.

Training Bid

You can edit your Training bid at any time unless your administrator has locked the system.

Bids Screen Buttons

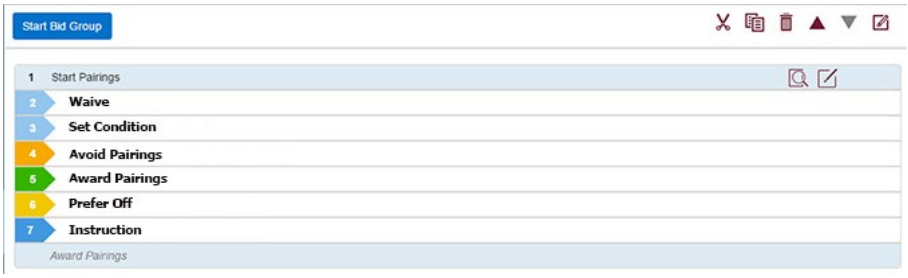
The following table shows the buttons that you will need to use to create, edit and analyze your bid preferences.

Button	Function
	Remove the bid preference and save it to the clipboard.
	Copy - copy a bid preference to the clipboard.
	Paste copied or cut bid preference.
	Delete the selected bid preference.
	Move selected bid preference up. The button is inactive if the preference can't be moved.

	Move selected bid preference down. The button is inactive if the preference can't be moved.
	Open or close the Bid Preference Editor. You must have a bid group started.
	Open the Bid Preference Editor.
	Add a bid preference above the selected bid preference.
	Add a bid preference below the selected bid preference.
	This button is only accessible if you have selected a bid preference. This button opens a list that allows you to cut, copy, delete, edit, or analyze a bid.
	Open the bid analyzer with pairing reports below the bid.
	Show bid analyzer results in your bid.
	Show/Hide analyzer information. Use this to customize the information that is displayed.

Bid Preference Colors

Each bid preference has a color associated it with it.



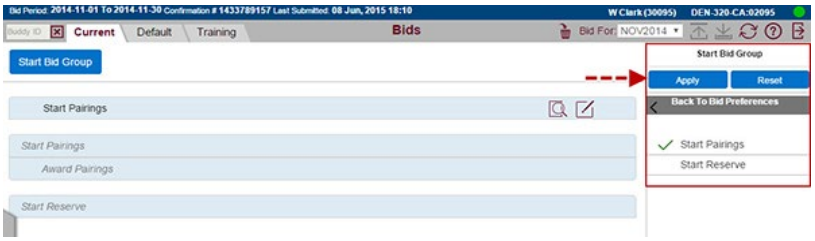
Add a Bid Group and Bid Preference

Before you can add a bid preference you must add a bid group. This section illustrates how to add a bid group and a bid preference inside of it. This tutorial shows you how to add a `Start Pairings` bid group and add an `Award Average Daily Credit` bid inside of it.

Regardless of your reserve type, adding a bid group and bid preference is the same. See Pairing Preference Editor for information on how to add options to bids.

1. Go to the **Bids** screen.
2. Select Bid Type - **Current** or **Default**
3. Click on the **Start Bid Group** button
4. Click **Start Pairings**

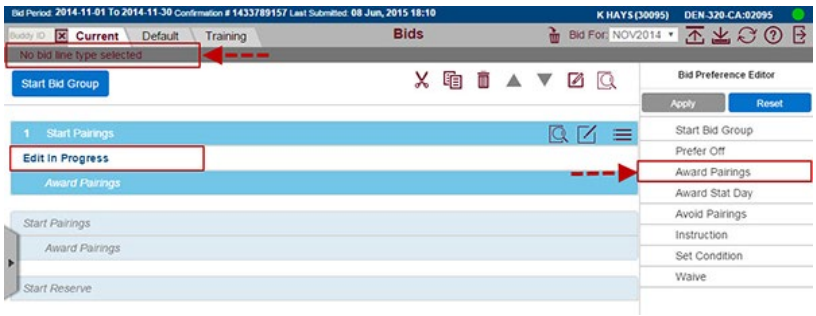
The Start Bid Group editor opens.



5. Click **Apply**.

The Bid Preference Editor opens.

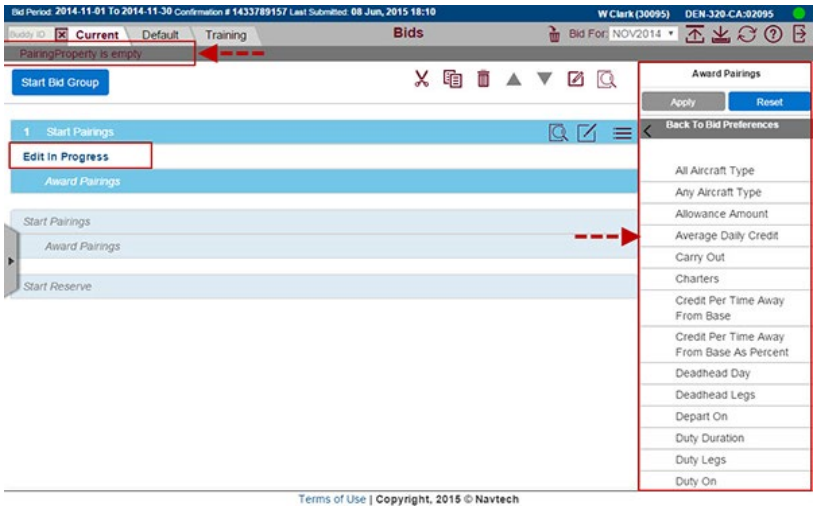
6. Click on **Award Pairings**.



The **Apply** button is inactive because you haven't selected enough criteria for the bid yet. There is also a message above the **Start Bid Group** button to indicate what is missing.

Notice that **Edit in Progress** is displayed while you are adding your bid.

7. Click on **Average Daily Credit**.

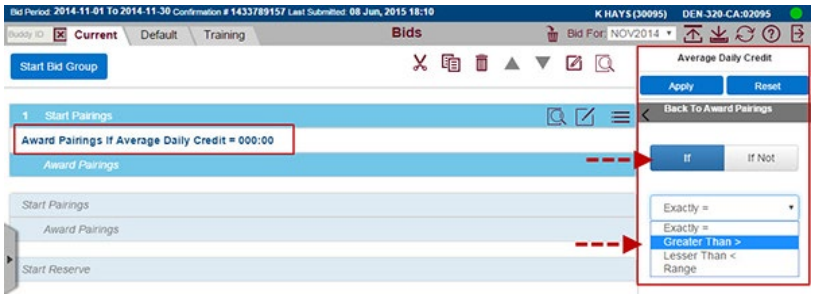


The **Apply** button is inactive because you haven't selected enough criteria for the bid yet. There is also a message above the **Start Bid Group** button to indicate what is missing.

Notice that **Edit in Progress** is displayed while you are adding your bid.

8. Choose **If** - If is the default selection and If Not is not available in all configurations.

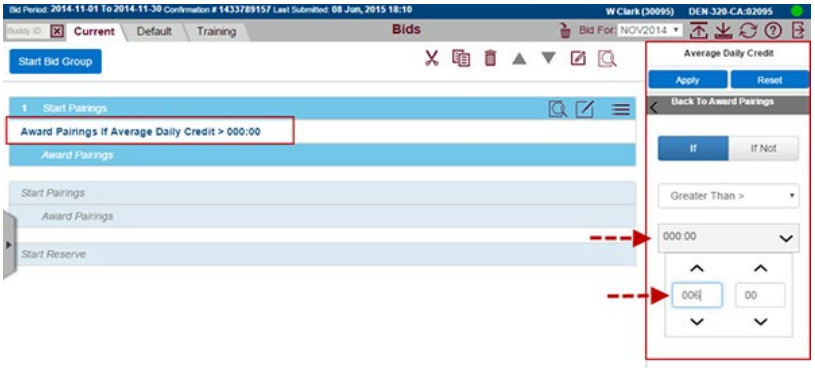
9. Select **Greater Than>** from the drop-down menu.



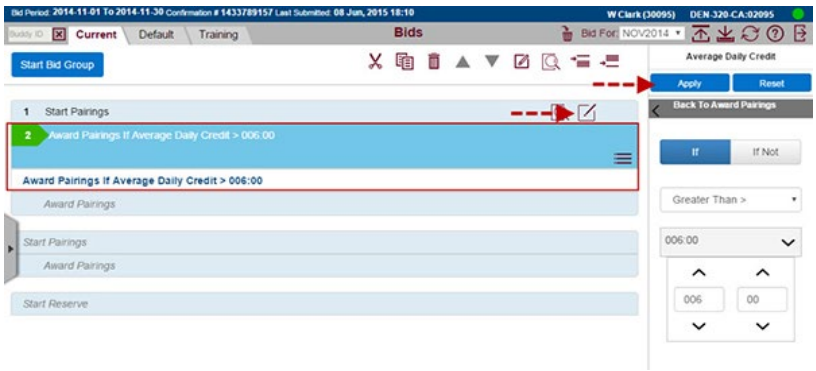
Editing in Progress has changed to the bid preference selected.

10. Click on the **000:00** drop-down menu.

11. Use the arrows beside each field or use your keyboard to enter a time.

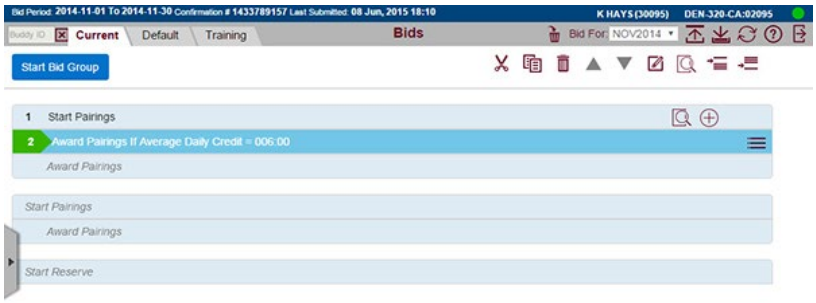


12. Click **Apply**.



The preference is added to your bid. If you want to add more bids click on Reset to return to the Bid Preference Editor. Edit in Progress is displayed when you return to the editor.

Click on the editor button to close the Bid Preference Editor.



Bid preference added and the Bid Preference Editor is closed.

Edit/Move/Delete a Bid Group or Bid Preference

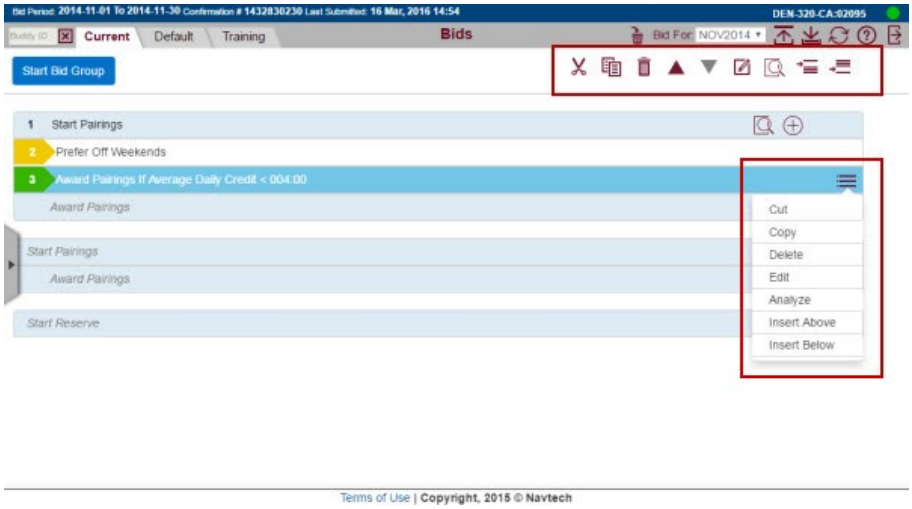
See Buttons for a complete list of buttons and their functionality available on each screen.

See Copy a Bid for instructions on how to copy bids.

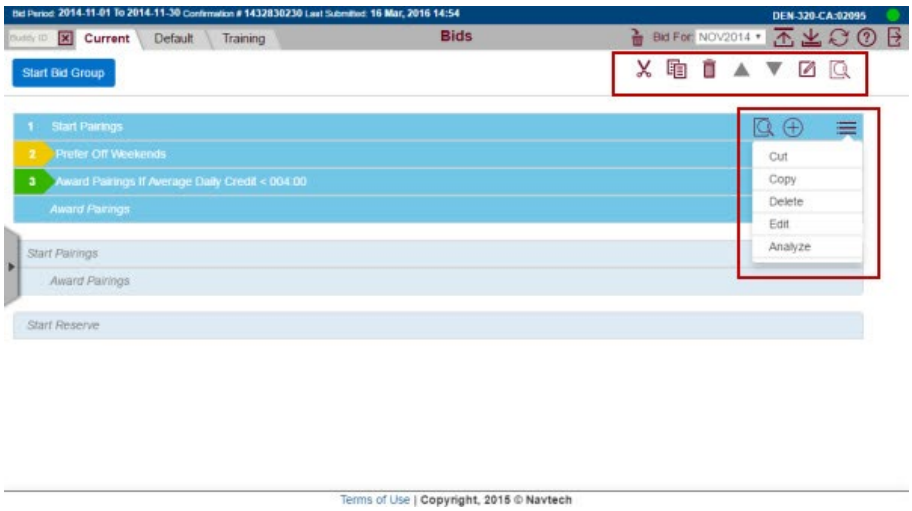
See Select Bid Groups and Bid Preferences for instructions on to select bids.

Once you have your bid group or preference selected use the buttons on the top right or click the menu button to access a list of actions. The menu button only appears once you have made a selection. These buttons allow you to cut, copy, paste, move, delete or edit a bid group or preference. See below for more information on editing a bid.

bid group selected



single bid preference selected



Editing a Bid Group

You can edit Pairings bid group to change it to an RLL or a Split Duties bid group (if you are configured for RLL or Split Duties) or change it the other way. You cannot change a Pairings bid group to a Reserve bid group or change a Reserve bid group to a Pairings bid group.

Edit Mode

Edit Mode allows you edit multiple bids, one at a time, without having to select the edit button every time you select a bid. When you are in Edit Mode any bid group or preference you select will be edited if you make any changes to it until you exit Edit Mode. When you have exited Edit Mode you can add new bid groups or preferences by reopening the editor.

There are two ways you can enter Edit Mode:

- if the Bid Preference Editor is closed select - **Note**, if the Bid Preference Editor is open this button will close the editor

- click on the menu button and select Edit from the list of options

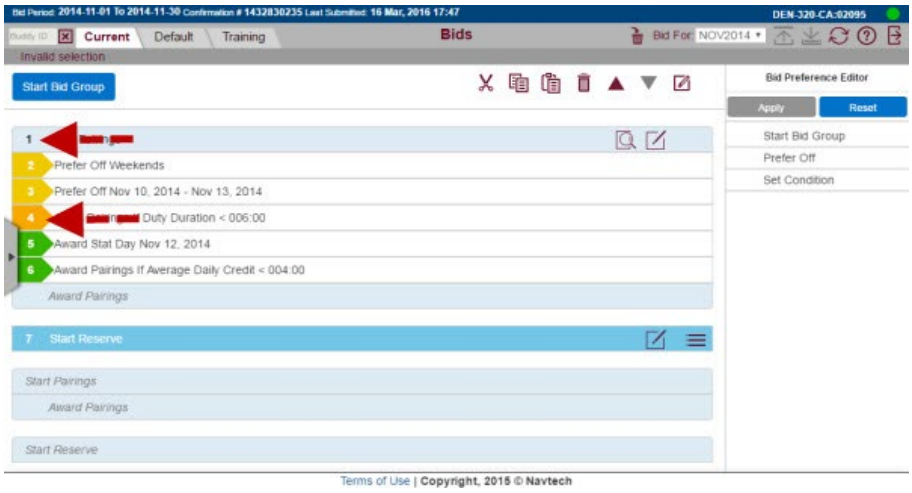
There are three ways to exit Edit Mode:

- click on the Close button in the editor to close it
- click on the button in the top menu to close the editor
- click on either the or to add a bid above or below the bid selected

Select Multiple Bid Groups or Bid Preferences

Click on the individual bid numbers to select multiple bid groups or preferences.

multiple selections



From the multiple selections screen shot, you would need to click on bid 1 and 7 to select both bid groups. You will lose all of your selections if you have multiple preferences selected and click on the bid text.

Copy Bid Groups and Bid Preferences

This section describes how to copy bid groups and bid preferences.

You can copy bid groups and bid preferences from:

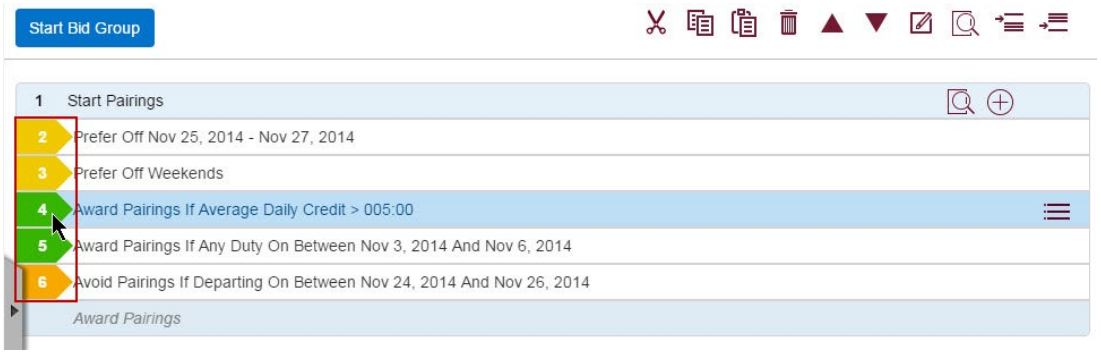
- within your Current and Default bids
- your Current to your Default bid or the other way around
- bid preferences from a Pairing to Reserve bid group or the other way around

You cannot copy all bid preferences from a Pairing to a Reserve group, for example, you cannot copy an Award Pairings bid preference to a Reserve group. If a bid preference cannot be copied and pasted, the Paste options will not be enabled, see steps below.

You may want to review how to select bids groups and preferences here before reviewing these steps.

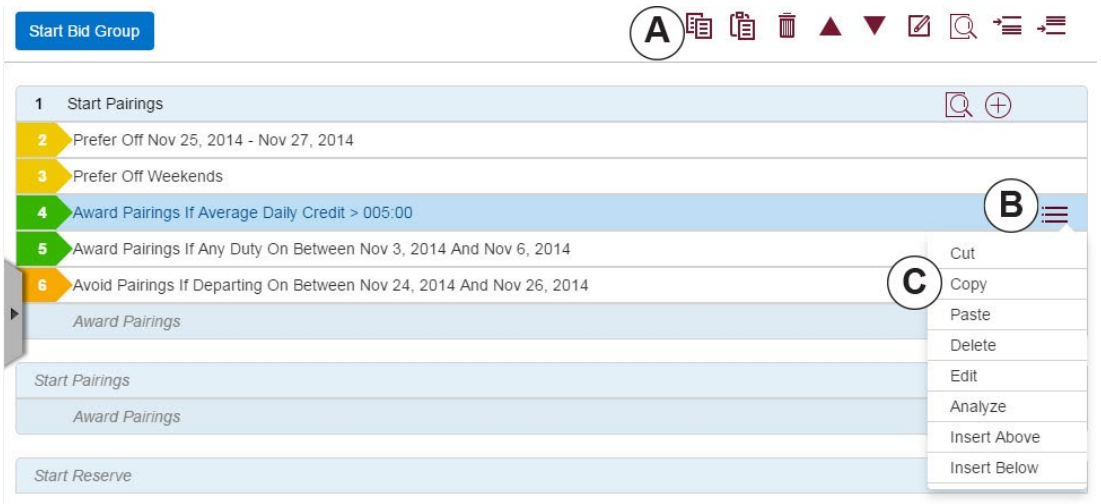
Copy bid preferences

1. Click on the bid number beside the bid that you want to copy. In the screenshot below, bid 4 is selected. Repeat this step for each bid you want to copy. Click on the bid number again or click outside of the bid number to deselect it.



Once selected, the bid preference is highlighted.

2. Copy the bid preference(s).



There are two ways to copy a bid preference:

a. Click the Copy (A) button in the row of buttons near the top of your bid.

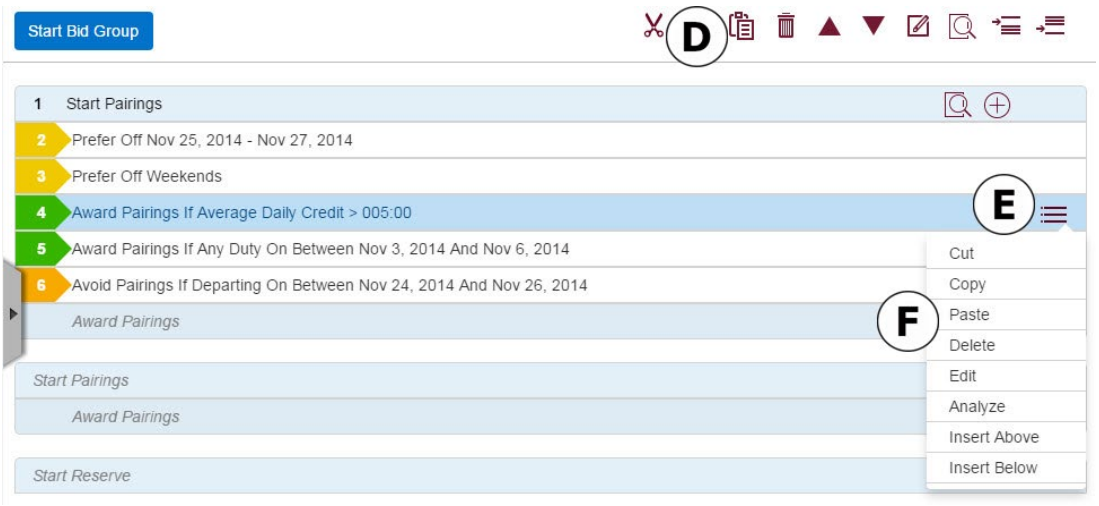
or

b. Click the menu button (B) in the same row as the Start Pairings/Reserve that you want to copy.

c. Select Copy (C) from the drop-down menu.

3. If you already have multiple bid groups, click in your bid where you want to paste your bid. You can use the arrow buttons to move the bid group after you have pasted it.

4. Paste the bid group.



There are two ways to paste a bid group:

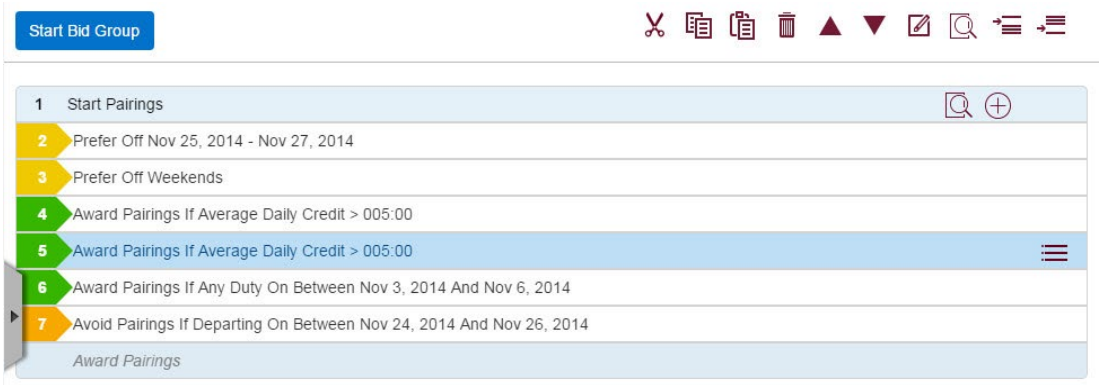
d. Click on the Paste (D) button in the row of buttons near the top of your bid.

or

e. If it is not open, click the menu button (E) in the same row as the Start Pairings/Reserve that you want to copy to open the drop-down menu.

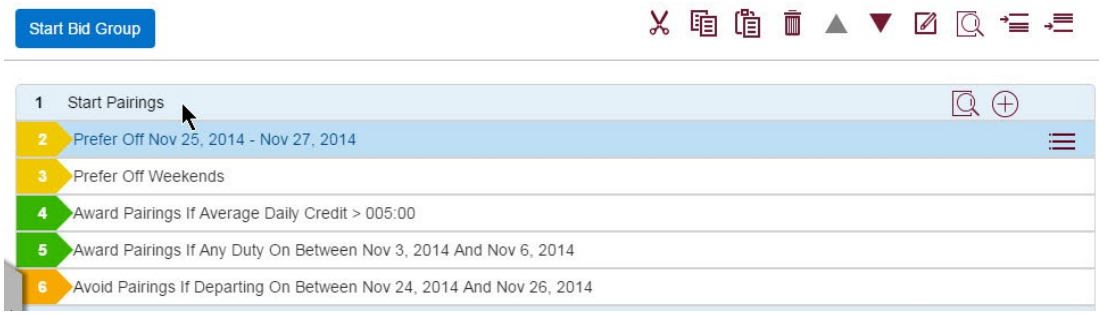
f. Select Copy (F) from the drop-down menu.

bid preference copied and pasted

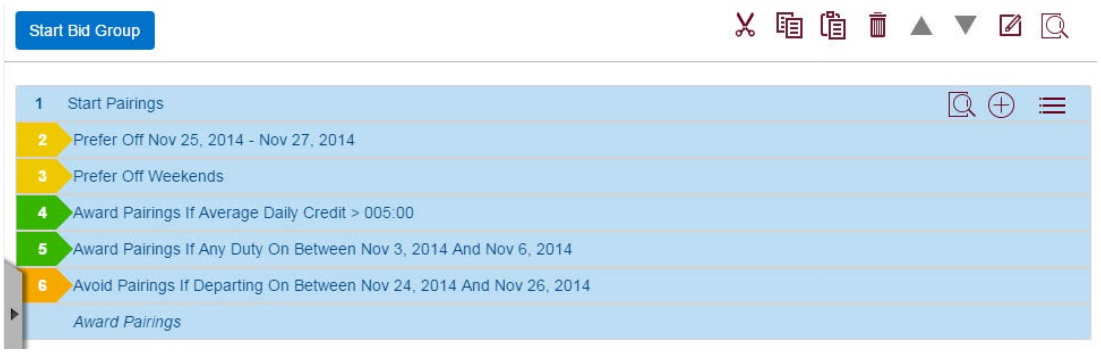


Copy an entire bid group

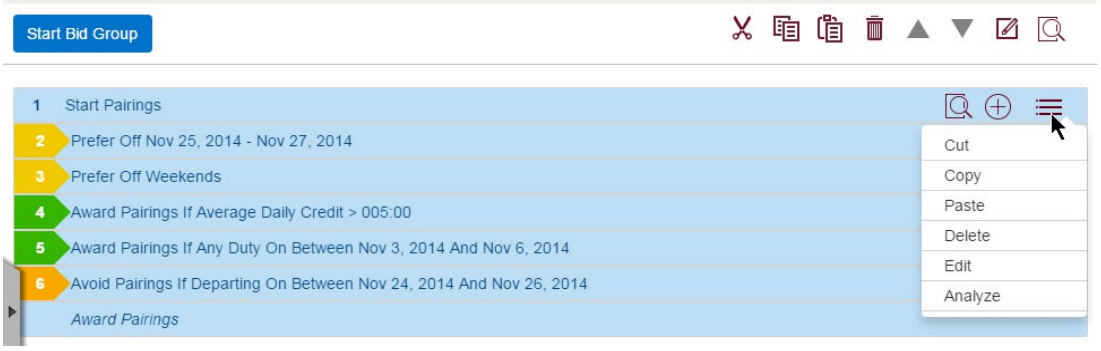
1. Click anywhere on **Start Pairings or Start Reserve** at the top of the bid group you want to copy (every bid group starts with either Start Pairings or Start Reserve).



Once selected, the bid group is highlighted.



2. Copy the bid group.



There are two ways to copy a bid group:

a. Click the Copy (A) button in the row of buttons near the top of your bid.

or

b. Click the menu button (B) in the same row as the Start Pairings/Reserve that you want to copy.

c. Select Copy (C) from the drop-down menu.

3. If you already have multiple bid groups, click in your bid where you want to paste your bid. You can use the arrow buttons to move the bid group after you have pasted it.

4. Paste the bid group.

There are two ways to paste a bid group:

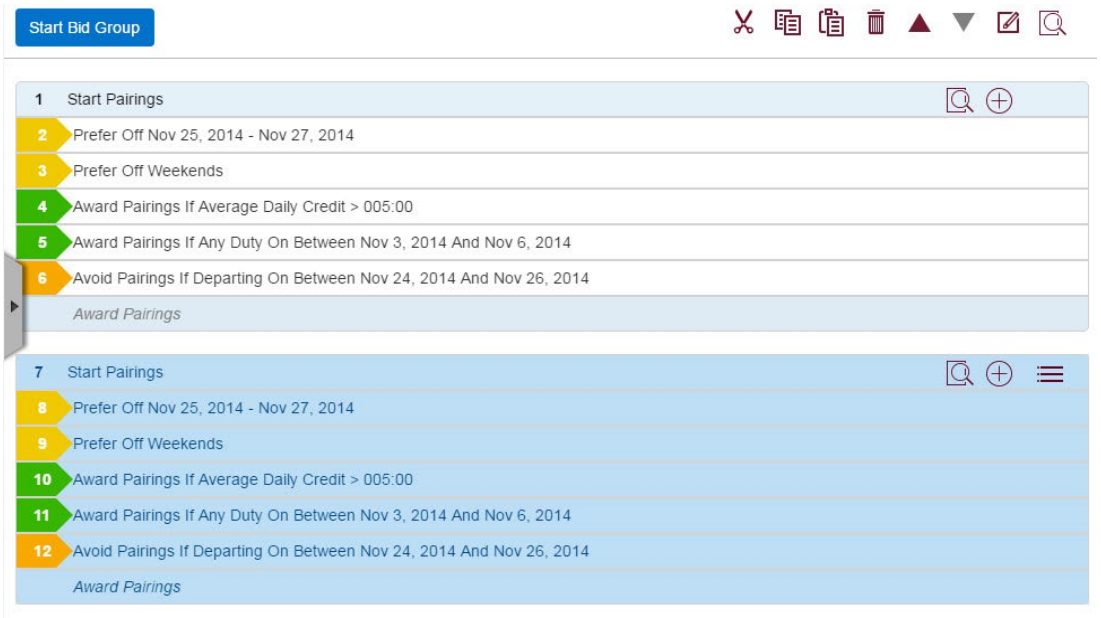
d. Click on the Paste (D) button in the row of buttons near the top of your bid.

or

e. Click the menu button (E) in the same row as the Start Pairings/Reserve that you want to copy to open the drop-down menu.

f. Select Copy (F) from the drop-down menu.

bid group copied and pasted



Split Duty Blocks

Selecting the Split Duties checkbox when adding a bid group indicates that you wish to bid for a full block of split duty pairings. This means that you are willing to take a block of split duty pairings built to the split duty credit window set by your administrators. The N-PBS Scheduler will attempt to award you a block of split duty pairings using the bids you have entered in this bid group only. The bids entered in this bid group only apply to pairings flagged as split duty. No pairings not flagged as split duty will be awarded from this bid group and no bids from other bid groups are used.

The N-PBS Bidder validates your bid when you submit it, this confirms that you don't have multiple Split Duty bid groups without an Else Start Next Bid Group option. You must have an Else Start Next Bid Group option in all of your pairing bid groups except for your last one. You can have one Pairing bid group and one Split Duty Pairing bid

group in your bid; however, you must add the Else Start Next bid option if you add a third bid group, either Pairings or Split Duty Pairings bid group.

For more information, see Bid Validation for more information.

Split Duty Details

You will not be awarded a full block of Split Duty pairings if you did not bid for it - the Scheduler cannot force a full split duty block on a bidder. You can bid to add split duty pairings to your block in a regular Pairings bid group, only use this bid group if you want a full block of split duty pairings.

Split Duty Restrictions - Set Condition

- you are not allowed to add Set Condition Maximum Credit and Set Condition minimum Credit bid preferences to a Split Duty bid group

Set Condition Maximum Credit and Set Condition minimum Credit are available options in a Split Duty bid group, however, these bids are not available in the Split Duty bid group. You will receive and error message when you add the bid to the Split Duty bid group.

- a Split Duty bid group can be placed anywhere in a bid, if you use multiple pairing bid groups you must use the Else Start Next bid option.

Reasons Report

Like the Reasons Report for a Pairings bid group, the Reasons Report for a Split Duty block shows the bid group and the reasons within it. If you are awarded a split duty block, the split duty credit window is displayed on your reasons report. The matching pairings display split duty pairings only.

```
-------------------------------------------------------------------------------
Seniority            39         Category CLE-DH8-CA
Minimum window <045:00>   Threshold <050:00>             Maximum window <055:00>
-------------------------------------------------------------------------------
<< Current Bid >>
    -------------------------
   1.   Start Pairings (Split Duties)
   2.     Prefer Off Feb 12, 2014 - Feb 18, 2014
   Partially honored
   3.     Award Pairings If Average Daily Credit > 004:00
  R0025      2014-02-21 10:45    2014-02-21 20:39 (006:02)   (CA)
  R0010      2014-02-24 07:45    2014-02-24 18:13 (006:58)   (CA)
  R0022      2014-02-25 07:55    2014-02-25 20:25 (004:41)   (CA)
  R0007      2014-02-26 07:00    2014-02-26 17:43 (004:18)   (CA)
  R0010      2014-02-27 07:45    2014-02-27 18:13 (006:58)   (CA)
   Awarded for coverage: 4
   Block is complete: 28
  (5 Awarded, 37 Matching, Running total: 052:40)
          Award Pairings
    -------------------------
        Start Pairings
          Award Pairings
    -------------------------
        Start Reserve
```

Reduced Lower Limit (RLL)

Selecting the Reduced Lower Limit checkbox when adding a bid group indicates that you wish to bid for a lower block. This means that you are willing to take a block below the minimum credit window without receiving a Reserve line. The N-PBS Scheduler will attempt to award you an RLL pairing block only if it cannot award you a normal pairing block. The NAVBLUE PBS interface will not allow you enter an RLL bid group until you have entered a regular Pairing bid group.

The N-PBS Bidder validates your bid when you submit it, this confirms that an RLL bid group is placed after an unconditional Pairings bid group. This ensures that the N-PBS Scheduler has attempted everything it can before attempting to award you an RLL pairings block.

For more information, see Bid Validation.

Reduced Lower Limit Details

You will not be awarded an RLL block if:

- you did not bid for it - the Scheduler cannot force an RLL block on a bidder
- the N-PBS Scheduler can build you a legal Pairing block
- the maximum number of awarded RLL blocks has been reached or if you are below the seniority cutoff - administrators set the number of bidders that can be awarded an RLL block and the seniority cutoff
- you are a reduced block bidder

RLL Restrictions - Set Condition

- you are not allowed to add Set Condition Maximum Credit and Set Condition minimum Credit bid preferences to an RLL bid group

Set Condition Maximum Credit and Set Condition minimum Credit are available options in an RLL bid Group, however, these bids are not available in the RLL bid group. The **Apply** button remains inactive until you add a bid that is allowed in an RLL bid group.

- an RLL bid group must be placed below a bid group, either Reserve or Pairing, without an Else Start Next Bid Group or a Clear Schedule and Start Next Bid Group- a Reserve bid group can be placed in between, see Bids That Can Submitted and Bids That Cannot be Submitted for more information

Reasons Report

There are three messages related to the reasons report informing you why you did not receive an RLL block:

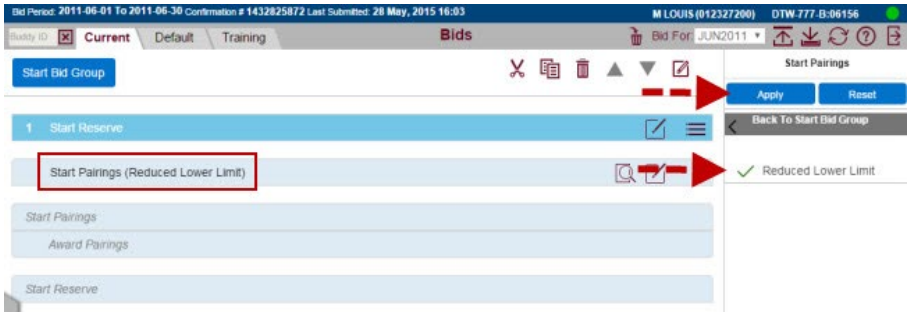
- Maximum Reduced Lower Limit Line Reached- the maximum number of RLL lines were awarded to senior bidders
- Not-Considered Below Reduced Lower Cutoff- you are below the RLL cutoff as defined by the administrator
- Not-Considered Reduced Block- this means that you are defined as a reduced block bidder, reduced block bidders cannot be awarded an RLL block

Add an RLL Bid

To add an RLL bid:

1. Add a Start Pairings or Start Reserve bid group. RLL bid groups are not available until you have added at least one or more Reserve or Pairing bid group.
2. Click **Start Bid Group**.
3. Click **Start Pairings**.

4. Click **Start Pairings** on the Bid Preference Editor.
5. Click on **Reduced Lower Limit**. A green check mark is displayed beside the text and (Reduced Lower Limit) is displayed beside Start Pairings in your bid.



6. Click **Apply** to add the bid group to your bid.

Buddy Bidding

Both crewmembers must enter the other crew member as a buddy for buddy bidding to occur. The senior crew member is dropped to the same level as the junior crewmember.

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

Crewmembers who are buddy bidding with a more junior crewmember should also submit a Current or Default bid, even though it won't be used for buddy bidding. If something happens, such as their buddy forgetting to bid properly, the N-PBS Scheduler uses their bid at their regular seniority to create their block.

Buddy Bidding Processing

Buddy bidding is only performed if both crewmembers enter each other in the buddy field. You can only identify one crewmember as a buddy.

The N-PBS Scheduler attempts to maximize the number of buddiable pairings awarded to each crewmember. Buddiable means that both crewmembers have been awarded

the same pairing. The N-PBS Scheduler attempts to complete each buddy's block with buddiable pairings first. If it cannot fill each crewmember's block with buddiable pairings it will attempt to put non-buddiable pairings on each crewmember's block using the junior crewmember's bid. Shuffling of buddy and non-buddy pairings will also occur but the N-PBS Scheduler will give priority to non-buddy pairings. The N-PBS Scheduler also uses the system-generated Award Pairings bid to add buddiable pairings.

Buddy Bidding Position Processing

The N-PBS Scheduler considers positions when awarding buddiable pairings.

Buddy Bidding Position Examples

Award Pairings IF Position F1, F2, F3

The first buddy could receive F1 and the second receive F2, or the first could receive F1 and the second receive F3 and so on.

Award Pairings IF Positions SP

The first buddy would be awarded the SP position and the second buddy would receive any position available.

Buddy Bidding on the Reasons Report

Each pairing that is awarded with a buddy is listed as buddied on the Reasons Report.

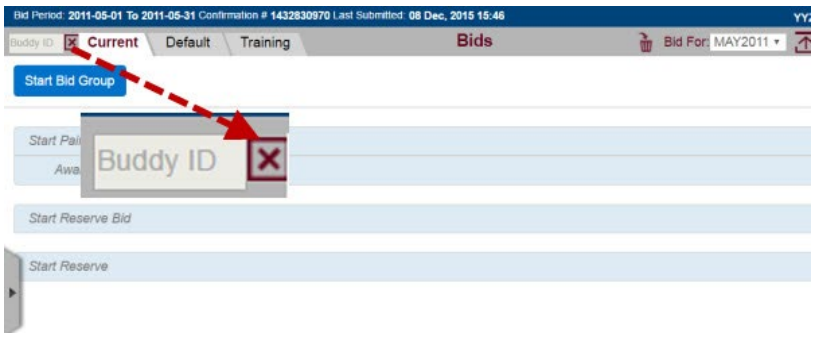
Add a Buddy

If you want to buddy bid with another crewmember, you need to add their employee number to your bid. The crewmember that you choose to bid with must also enter your employee number in their bid.

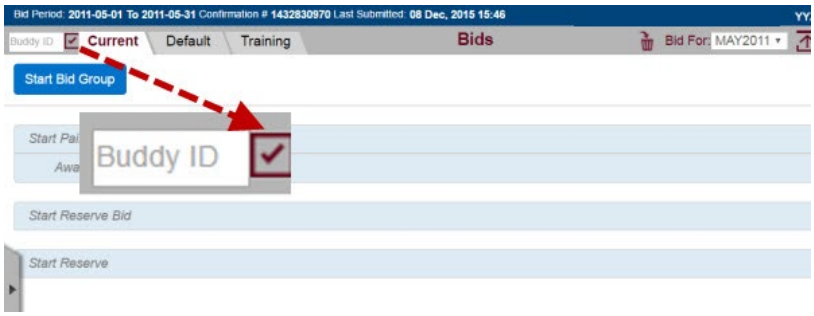
Remember that the junior buddy's bid is used to build the block for both buddies, but the senior buddy should also enter a bid, as a precaution.

To add a buddy to your bid:

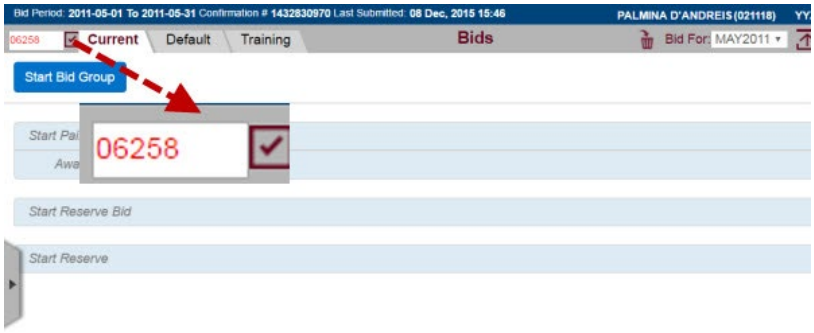
1. Go to the Bids Screen.
2. Select the red X beside Buddy ID on the Bids Screen.



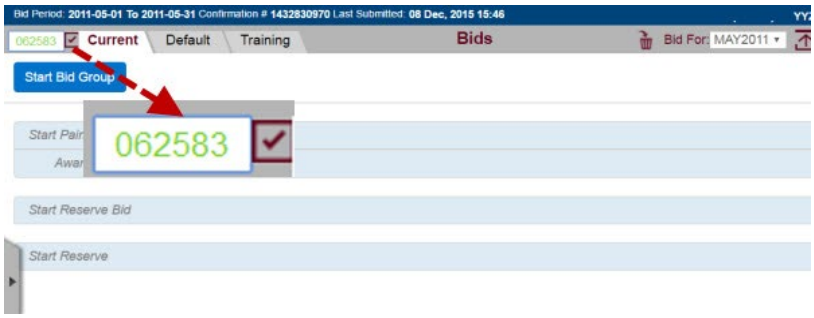
3. Once clicked, the red X becomes a red check mark and the text field becomes active.



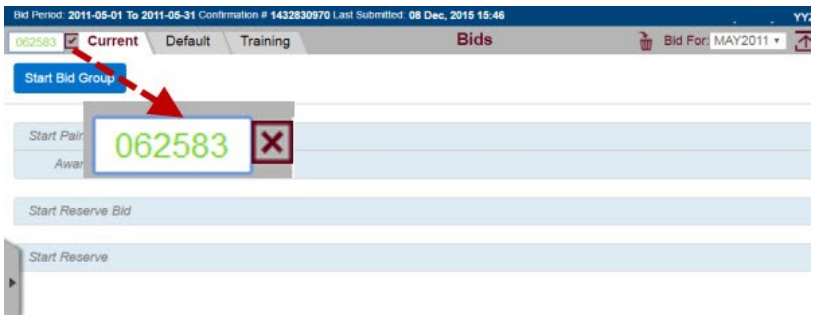
4. Enter your buddy's employee number. The employee number that you enter is red until you have entered a valid employee number.



5. Finish entering the employee number. The employee number turns green when you have entered a valid employee number



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



Start Bid Reserve Bid - Bid Group

This bid is only available in Consecutive Reserve. If you don't see this option it is not available.

The Start Reserve Bid does not award you a Reserve Line. This bid, if used, instructs the N-PBS Scheduler to flag you as on reserve. It stops trying to award you a flying block and processes your reserve bid in seniority order once all pairing blocks are built.

The Start Reserve Bid, Bid Group is a one line bid preference bid group that requests a reserve block. If the N-PBS Scheduler reaches this group it stops processing your Pairings bid. You are marked as on Reserve, and the N-PBS Scheduler begins processing the next crewmember's Pairings bid group. Once all Pairing bid groups have been processed, the N-PBS Scheduler begins to process all Reserve bid groups in seniority order. The N-PBS Scheduler does not move back to your Pairings bid group, and you are awarded a reserve block only.

You can attach a Max Above X (X is the value that you enter) option to the Start Reserve Bid bid preference. The Else Start Next Bid Group option is added automatically when you use Max Above. This indicates that you want a reserve block, but only if the amount of reserve blocks already awarded is less than the amount you entered. If this number has not been met the N-PBS Scheduler moves to the next bid group.

Bid Validation is preformed when you submit your bid. See Consecutive Bids that can be submitted and bids that cannot be submitted.

Start Reserve Bid Max Above

- bid for a reserve block, and set the maximum number of reserve block holders above you in seniority

Example

```
Start Reserve Bid Max Above 4 Else Start Next Bid Group
```

- the N-PBS Scheduler awards you a reserve block only if no more than four reserve blocks have already been awarded; if the first four reserve blocks have been awarded, the N-PBS Scheduler awards you the fifth reserve block, but if the first five reserve blocks have been awarded, the N-PBS Scheduler continues to process the rest of your Pairings bid group
- the Else Start Next Bid Group option is added automatically to a Start Reserve Bid Group bid if you use the Max Above option

Add a Start Bid Reserve Bid - Consecutive Reserve

To Add a Start Reserve Bid:

1. Click the **Start Bid Group** button.
2. Click **Start Reserve Bid** bid.

   To add the Max Above Option:

   a. Click on Start **Start Reserve Bid**.
   b. Click on **Max Above**.
   c. Use the drop-down menu and arrows to add a number.
3. Click **Apply**.

The bid group is added to your bid.

Some Important Notes

- if you use Max Above, Else Start Next Bid Group will be added automatically
- the bid group can be moved above or below other Start Reserve Bid and Pairings bid groups using the Cut, Copy and Paste or the Up and Down buttons
- The N-PBS interface will validate your bid when it is submitted, see Start Reserve Bid Validation for more details

Award Reserve Line

This bid is only available in Standard Reserve. If you don't see this option it is not available.

The Award Reserve Line bid tells that the N-PBS Scheduler that you want it to stop processing your bid and flag you as on Reserve. Your Reserve block is built outside of the NAVBLUE N-PBS System.

You can attach a Max Above X (X is the value that you enter) option to the Start Reserve Bid bid preference. The Else Start Next Bid Group option is added automatically when you use Max Above. This indicates that you want a reserve block, but only if the amount of reserve blocks already awarded is less than the amount you entered. If this number has not been met the N-PBS Scheduler moves to the next bid group. See Bid Validation for more information on bids that you can and cannot submit.

Add an Award Reserve Line Bid - Standard Reserve

To Add an Award Reserve Line Bid:

1. Click the **Start Bid Group** button.
2. Click **Award Reserve Line** Bid.

a. Click on **Award Reserve Line**.

b. Click on **Max Above**.

c. Use the drop-down menu and arrows to add a number.

3. Click **Apply**.

The bid group is added to your bid. Else Start Next Bid Group is added automatically if you use the Max Above option

Some Important Notes

- if you use Max Above, Else Start Next Bid Group will be added automatically
- the bid group can be moved above or below other Award Line Reserve Bid and Pairings bid groups using the Cut, Copy and Paste or the Up and Down buttons
- The N-PBS interface will validate your bid when it is submitted, see Award Line Reserve Bid Validation for more details

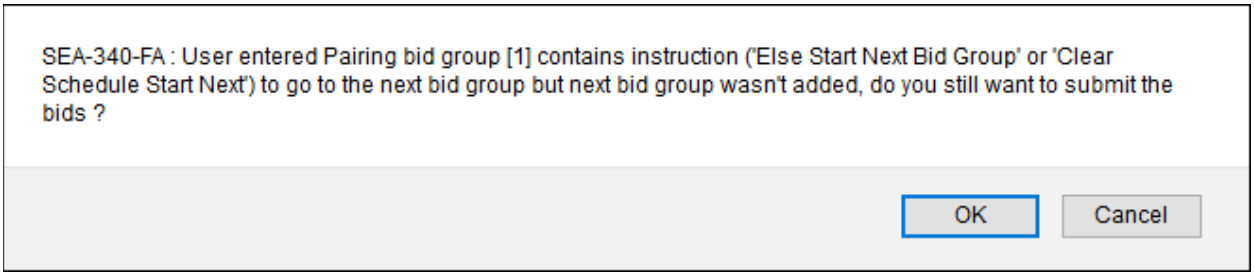
Else Start Next Bid Group

Bid Groups are independent of each other. Bid Preferences are only relevant for the bid group they are contained in. The N-PBS Scheduler clears anything (Pairings or Reserve Days) and begins processing the next bid group.

Else Start Next Bid Group can be added to the end of all Prefer Off and Avoid bids along with certain Set Condition bids, in both a Pairing and Reserve bid group. If you do not see the Else Start Next Bid Group option it is not available. By attaching the Else Start Next Bid Group option, you tell the N-PBS Scheduler that if a legal schedule cannot be created using this bid preference you would prefer to move to the next bid group, either a Pairings bid group or a Reserve bid group.

If you use this command in your last bid group the N-PBS Scheduler uses the system-generated bid groups to complete your block; this means that the N-PBS Scheduler will attempt to build you a pairings block using the Award Pairings system-generated bid preference. If a complete block still cannot be built, the N-PBS Scheduler attempts to build you a Reserve block using the system-generated bid preference Start Reserve.

If you submit a bid with the Else Start Next Bid Group option in a bid group without a bid group after it, you will see the following message:



Bid Analyzer

The Bid Analyzer only analyzes positive (Award) and negative (Prefer Off, Avoid) bid preferences in Pairing bid groups. You cannot analyze bid preferences in a Reserve bid group, nor does the analyzer take into account Set Condition, Instruction or Waive bid preferences.

The Bid Analyzer is a tool that shows you how many pairings match a negative or positive bid preference. It then shows you how your bid affects the available pairing pool for your category. You can use this information to determine how effective a bid preference or your entire bid is. For example, if a bid preference doesn't match any pairings in the available pool it won't have any affect 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.

On a negative bid, the analyzer shows you how many pairings are removed from the available pairing pool and on a positive bid, the analyzer shows you how many potential pairings are in the pairing pool. These are potential awards, if you see a pairing in the preferred pool it does not mean that you will be awarded the pairing.

You can view the bid analyzer results for a single bid or for your entire bid. The results can be shown in the bid or can be shown below the bid along with the list of pairings that match the results. Follow the links below to for more information.

View results for an entire bid - this section shows you how to view the results for an entire bid using the results returned in your bid.

View results for a single bid - this section shows you how to view results for a single bid using the results and pairings listed below your bid.

View results in the dates view - this section show you how to view results using the dates view in the pairing list below your bid.

See Bids Screen Buttons for a list of analyzer buttons.

Bid Analyzer - Pairing List Results

This section describes how to use the bid analyzer on a single Award or Avoid Pairing bid.

These steps shown describe how a single bid is analyzed. If you have multiple bids select it to analyze it alone. The steps here show how to an analyze an award pairings. Add an Avoid bid in step 1 and follow the rest of the steps to analyze an Avoid bid.

1. Add an Award/Avoid Pairings bid preference.

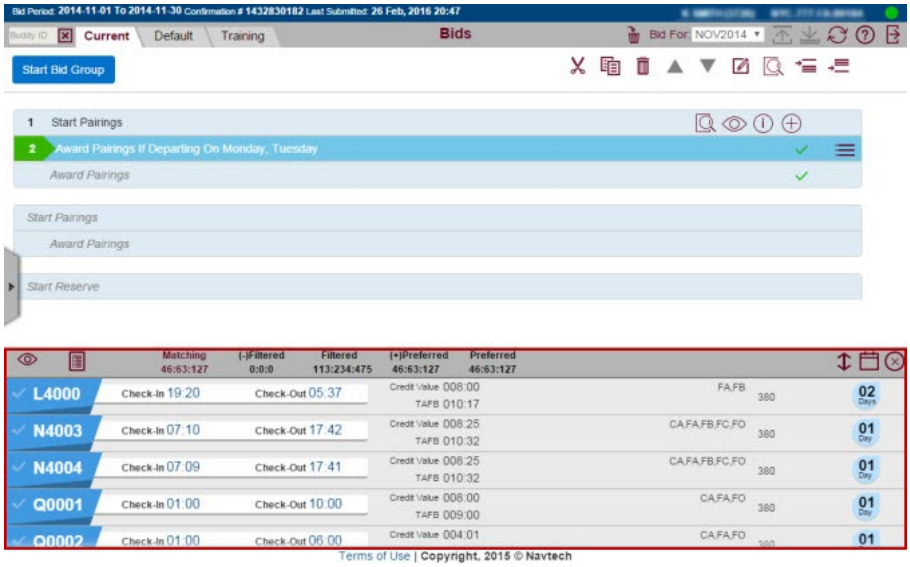
award pairings bid preference added

2. Click on the bid preference to highlight it.

3. Click on the analyze button.

   The Bid Analyzer opens at the bottom of the screen.

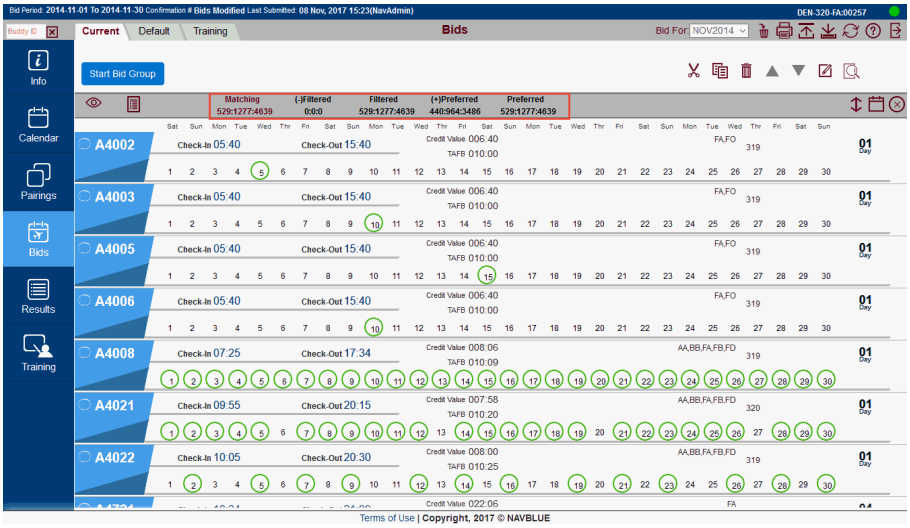
bid analyzer results



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

match it. The heading turns red to indicate which results you are viewing. The example below shows the Matching results.

results in full screen - results in red box



Results

There are 3 sets of numbers below each heading. These numbers indicate the number of pairings, pairing on dates and pairing instances.

Pairings - how many pairings match the bid preference.

Pairing on Dates - how many times the pairing operates in the bid period.

Pairing Instances - how many positions are available on the pairing in the bid period. This number may be higher than pairings if there are more than 1 position on the pairing.

Matching - These numbers indicate how many pairings match the bid preference.

(-)Filtered - These numbers show how many pairings have been removed by the negative bid preference. These pairings won't be awarded unless denial mode is used.

Filtered - These numbers indicate how many pairings are in the available pairing pool. This is the number of pairings that the PBS Scheduler will consider when awarding your block unless denial mode is used.

(+)Preferred - These numbers show how many pairings have been added to the Preferred pool.

Preferred - These numbers indicate 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).

Award Pairings Results

Matching	(-)Filtered	Filtered	(+)Preferred	Preferred
46:63:127	0:0:0	113:234:475	46:63:127	46:63:127

This section takes a closer look at the results from the positive `Award Pairings If Departing on Monday, Tuesday` bid preference. Remember that positive bid preferences add pairings to your preferred pool of pairings. The preferred pool is the number of pairings that are possible awards based on your positive bid preferences. This is what you have told the PBS Scheduler you are you looking for in pairings.

Matching 46:63:127 - 46 pairings match the bid preference, these pairings operate 63 times in the bid period and there are 127 instances (positions) of this pairing.

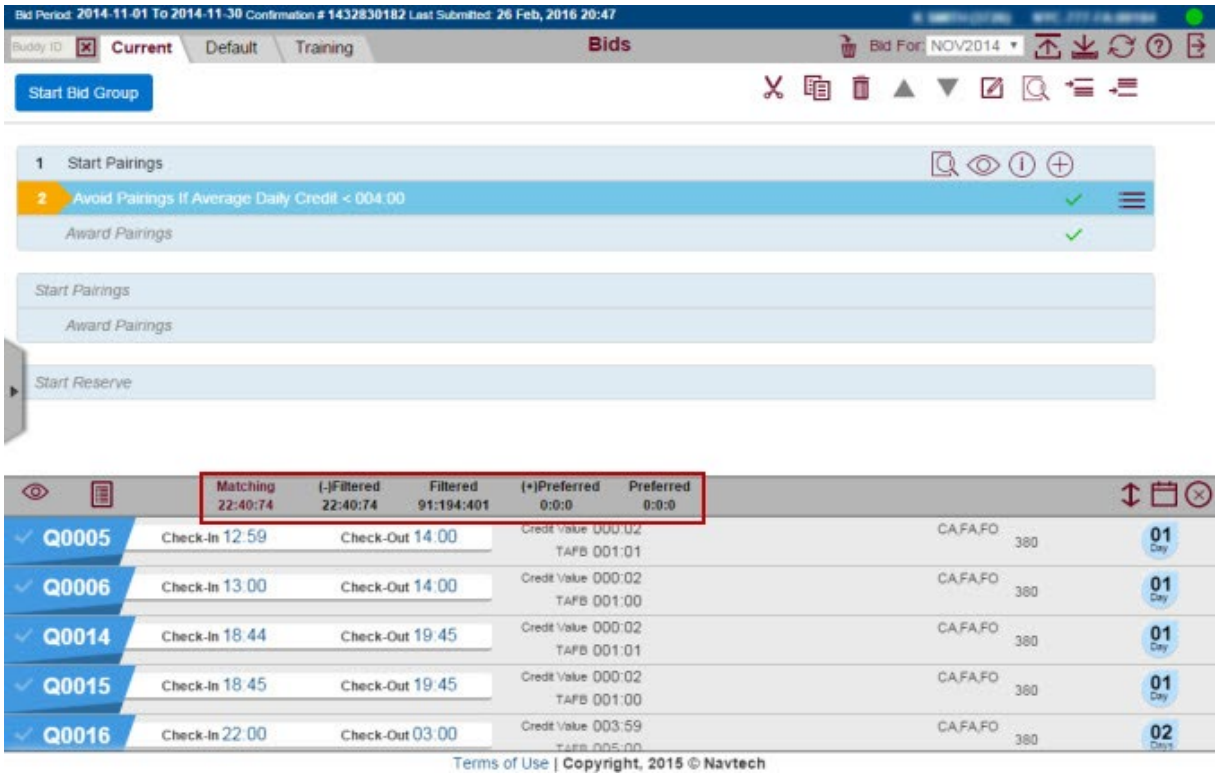
(-)Filtered 0:0:0 - no pairings match because this is a positive bid preference. Not shown when viewing the results inside of the bid group.

Filtered 113:234:475 - there are 113 pairings in the available pairing pool that operate 234 times in the month with 475 instances (positions). These pairings are the pool of possible awards.

(+)Preferred 46:63:127 - 46 pairings match the bid preference, these pairings operate 63 times in the bid period and there are 127 instances (positions) of this pairing. This number is the same as Matching because there is only one pairing being analyzed. This number can grow with multiple award pairing preferences.

Preferred 46:63:127 - 46 pairings match the bid preference, these pairings operate 63 times in the bid period and there are 127 instances (positions) of this pairing. This number is the same as Matching because there is only one pairing being analyzed. This number can grow with multiple award pairing preferences.

Prefer Off / Avoid Pairing Results



Matching	(-)Filtered	Filtered	(+)Preferred	Preferred
22:40:74	22:40:74	91:194:401	0:0:0	0:0:0

This section takes a closer look at the results from the negative `Avoid Pairings If Average Daily Credit < 004:00` bid preference. Remember that negative bid preferences (Avoid Pairings and Prefer Off) remove pairings from consideration by the PBS Scheduler when building your block.

Matching 22:40:74 - 22 pairings match the bid preference, these pairings operate 40 times in the bid period and there are 74 instances (positions) of this pairing.

(-)Filtered 22:40:74 - 22 pairings match the bid preference, these pairings operate 40 times in the bid period and there are 74 instances (positions) of this pairing. This number is the same as Matching because there is only one pairing being analyzed. This number can grow with multiple negative preferences.

Filtered 91:194:401 - there are 91 pairings in the available pairing pool that operate 194 times in the month with 401 instances (positions). These pairings are the pool of possible awards.

(+)Preferred 0:0:0 - no pairings match because this is a negative bid preference. Not shown when viewing the results inside of the bid group.

Preferred 0:0:0 - this is a negative bid, therefore no pairings were added to the Preferred pool.

Bid Analyzer - In Bid Results

Before you begin this section you may want to take some time to review Positive and Negative Bid preferences and the Bid Preference section.

This section describes how to use the bid analyzer on a single Award or Avoid Pairing bid.

This steps shown describe how a single bid is analyzed. If you have multiple bids select it to analyze it alone. The steps here show how to an analyze an award pairings. Add an Avoid bid in step 1 and follow the rest of the steps to analyze an Avoid bid.

1. Add an Award/Avoid Pairings bid preference.

2. Click on the bid preference to highlight it.

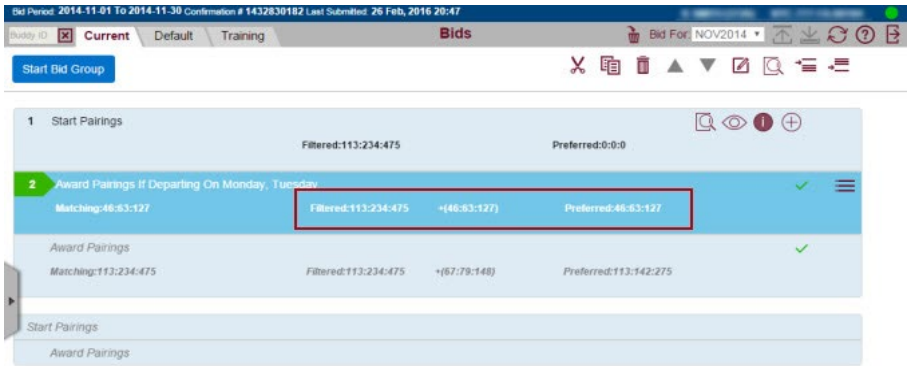
3. Click on the analyze button.

   The Bid Analyzer opens at the bottom of the screen and a new set of icons are displayed to the right of the bid.

bid analyzer icons

4. Click on the show results button.

   Bid analyzer results are shown inside of the bid.



Award Pairings Results

This section takes a closer look at the results from the positive `Award Pairings If Departing on Monday, Tuesday` bid preference. Remember that positive bid preferences add pairings to your preferred pool of pairings. The preferred pool is the number of pairings that are possible awards based on your positive bid preferences. This is what you have told the PBS Scheduler you are you looking for in pairings.

Matching 46:63:127 - 46 pairings match the bid preference, these pairings operate 63 times in the bid period and there are 127 instances (positions) of this pairing.

(-)Filtered 0:0:0 - no pairings match because this is a positive bid preference. Not shown when viewing the results inside of the bid group.

Filtered 113:234:475 - there are 113 pairings in the available pairing pool that operate 234 times in the month with 475 instances (positions). These pairings are the pool of possible awards.

(+)Preferred 46:63:127 - 46 pairings match the bid preference, these pairings operate 63 times in the bid period and there are 127 instances (positions) of this

pairing. This number is the same as Matching because there is only one pairing being analyzed. This number can grow with multiple award pairing preferences.

Preferred 46:63:127 - 46 pairings match the bid preference, these pairings operate 63 times in the bid period and there are 127 instances (positions) of this pairing. This number is the same as Matching because there is only one pairing being analyzed. This number can grow with multiple award pairing preferences.

Avoid Pairings Results

This section takes a closer look at the results from the negative `Avoid Pairings If Average Daily Credit < 004:00` bid preference. Remember that negative bid preferences (Avoid Pairings and Prefer Off) remove pairings from consideration by the PBS Scheduler when building your block.

Matching 22:40:74 - 22 pairings match the bid preference, these pairings operate 40 times in the bid period and there are 74 instances (positions) of this pairing.

(-)Filtered 22:40:74 - 22 pairings match the bid preference, these pairings operate 40 times in the bid period and there are 74 instances (positions) of this pairing. This number is the same as Matching because there is only one pairing being analyzed. This number can grow with multiple negative preferences.

Filtered 91:194:401 - there are 91 pairings in the available pairing pool that operate 194 times in the month with 401 instances (positions). These pairings are the pool of possible awards.

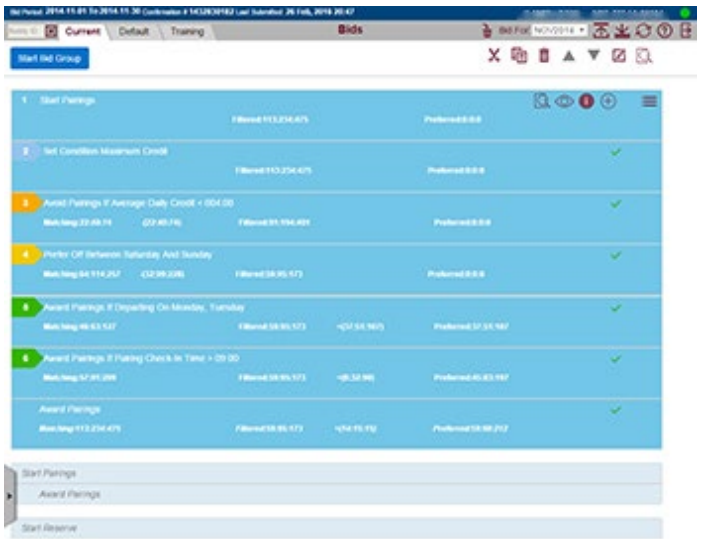
(+)Preferred 0:0:0 - no pairings match because this is a negative bid preference. Not shown when viewing the results inside of the bid group.

Preferred 0:0:0 - this is a negative bid, therefore no pairings were added to the Preferred pool.

Bid Analyzer - Entire Bid Results

Before you begin this section you may want to take some time to review Positive and Negative Bid preferences and the Bid Preference section.

entire bid analyzed



This section walks you through analyzing your entire bid. The steps below show you how to analyze your entire bid with the results inside

1. Click on the bid preference to highlight it.
2. Click on the analyze button.
3. Click on the show results button.

Results

There are 3 sets of numbers below each heading. These numbers indicate the number of pairings, pairing on dates and pairing instances.

Pairings - how many pairings match the bid preference.

Pairing on Dates - how many times the pairing operates in the bid period.

Pairing Instances - how many positions are available on the pairing in the bid period. This number may be higher than pairings if there are more than 1 position on the pairing.

Matching - These numbers indicate how many pairings match the bid preference.

(-)Filtered - These numbers show how many pairings have been removed by the negative bid preference. These pairings won't be awarded unless denial mode is used.

Filtered - These numbers indicate how many pairings are in the available pairing pool. This is the number of pairings that the PBS Scheduler will consider when awarding your block unless denial mode is used.

(+)Preferred - These numbers show how many pairings have been added to the Preferred pool.

Preferred - These numbers indicate 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).

Entire Bid Results

1. Start Pairings - **Filtered**:113:234:475 **Preferred**:0:0:0

Start Pairings is the system-generated bid at the start of every bid group you cannot edit or delete it. This tells you that there are 113 pairings available in your pairing pool. It's the start of the bid so you can't prefer or avoid pairings.

2. Set Condition Maximum Credit - **Filtered**:113:234:475 **Preferred**:0:0:0

You can't analyze Instruction, Waive and Set Condition bids. Nothing has changed so the numbers remain the same.

3. Avoid Pairings If Average Daily Credit < 004:00 - **Matching**:22:40:74 -(22:40:74) **Filtered**:91:194:401 **Preferred**:0:0:0

Avoid bids are negative bids that take away from your available pairing pool. This bid matches 22 pairings, so they are taken away and you are left with 91 (113 - 22). No positive bids have been analyzed yet so the Preferred pool remains at 0.

4. Prefer Off Between Saturday and Sunday - **Matching**:64:114:257 -(32:99:228) **Filtered**:59:95:173 **Preferred**:0:0:0

This negative bid matches 64 pairings. The next set of numbers tells you that another 32 pairings were removed. Why were only 32 removed and not 64? Only 32 were removed because 32 of the pairings that matched bid 3 were already removed. Therefore, you can tell that there are 32 pairings that match both bid 3 and 4. This leaves 59 (113 - (22 + 32)) pairings in your available pairing pool. No positive bids have been analyzed yet so the Preferred pool remains at 0.

5. `Award Pairings If Departing On Monday, Tuesday -`
   Matching:`46:63:127` **Filtered**:`59:95:173 +(37:51:107)`
   Preferred:`37:51:107`

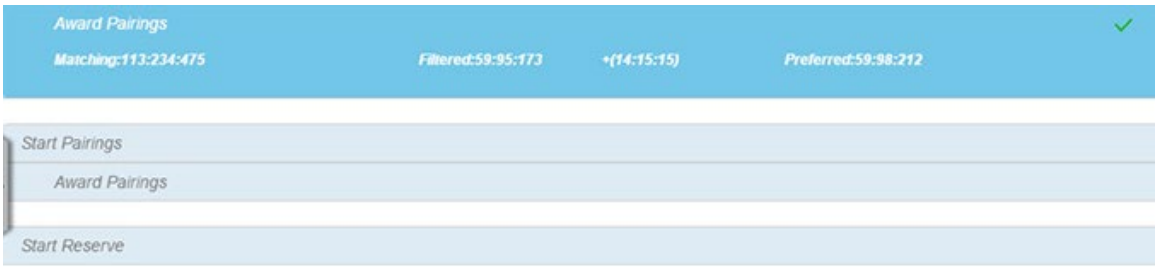
This positive bid matches 46 pairings, and because this is positive bid the number of pairings in your available pool remains at 59 (Filtered). The next set of numbers tells you that 37 pairings were added to your preferred pool. The preferred pool jumps from 0 to 37 because this is the first positive bid.

6. `Award Pairings If Pairing Check-In Time > 09:00`
   Matching:`57:91:209` **Filtered**:`59:95:173 +(8:32:90)`
   Preferred:`45:83:197`

This positive bid matches 57 pairings, and because this is positive bid the number of pairings in your available pool remains at 59 (Filtered). The next set of numbers tell you that 8 pairings have been added to your preferred pool. Why

were only 8 added and not 57? Only 8 were added because 49 of the pairings that matched bid 5 were already in the preferred pool. Therefore, you can tell that 49 pairings match both bid 5 and 6. The preferred pool grows to 45 (37 + 8).

7. `Award Pairings` **Matching**`:113:234:475` **Filtered**`:59:95:173 +(14:15:15)` **Preferred**`:59:98:212`



Award Pairings is a system-generated bid that you cannot edit or delete. This tells you that there are 113 pairings available in your pairing pool. The next set of numbers tells you that you have removed 59 pairings with your negative bid preferences. The next set of numbers indicates that 14 pairings were added to your preferred pool. These pairings were neither avoided or bid for but can be added as possible awards. The preferred pool grows to 59 (45 + 14).

The final numbers:

Matching:113:234:475 - this is the number of pairings in the period for your category (available pairing pool).

Filtered:59:95:173 - this is the number of pairings that you removed from your available pairing pool with the negative bids that you have entered.

Preferred:59:98:212 - this is number of pairings that remain in your available pairing pool. Your negative bids negative bids removed pairings from consideration from the available pairing pool.

Note: Depending on your bids and how many times it operates (instances), the same pairing can be in both your Preferred and Filtered pool. Consider the following bid, `Avoid Pairings If Departing on Monday If Pairing Numbers 1234`. You are only avoiding pairing 1234 that depart on Mondays. You could still be awarded pairing 1234 if there is another instance of the pairing that departs on another day of the week. This places the pairing in both the Filtered and Preferred pool.

Bid Analyzer - Dates View

The dates view option allows you to see the bid preference that adds a pairing to the Filtered or Preferred pool.

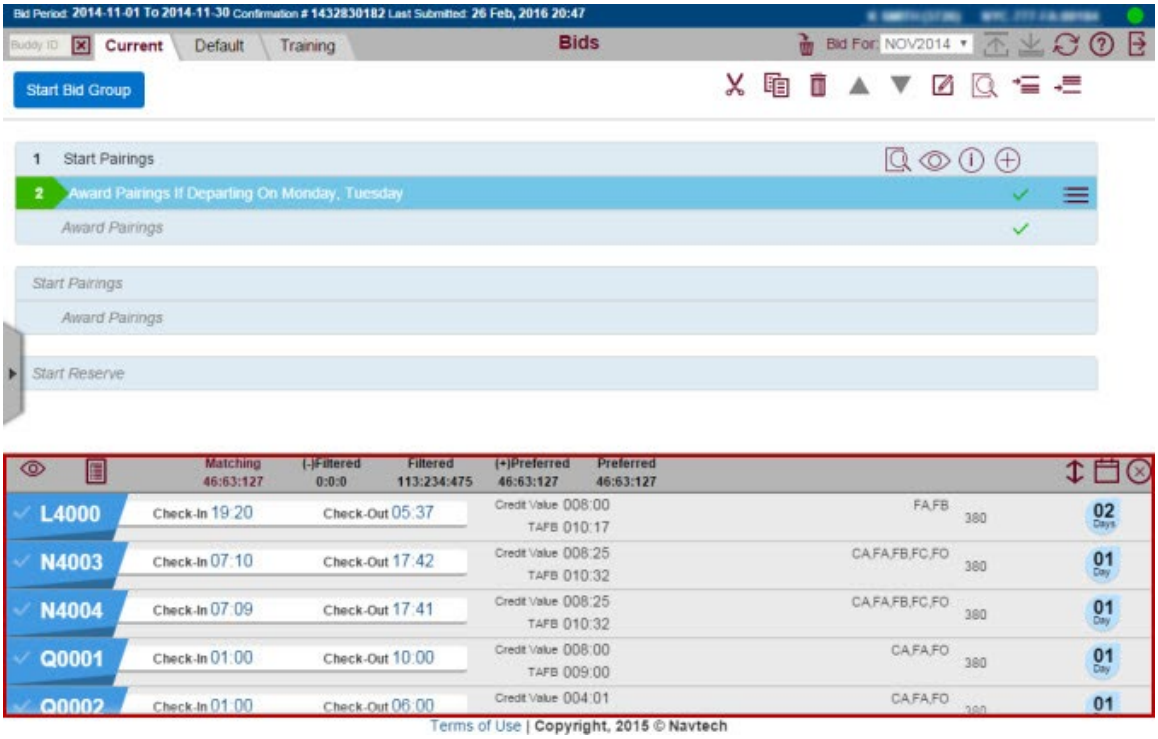
To use Dates View:

1. Enter your entire bid or a single bid preference.

2. Click on the analyze button.

   The Bid Analyzer opens at the bottom of the screen.

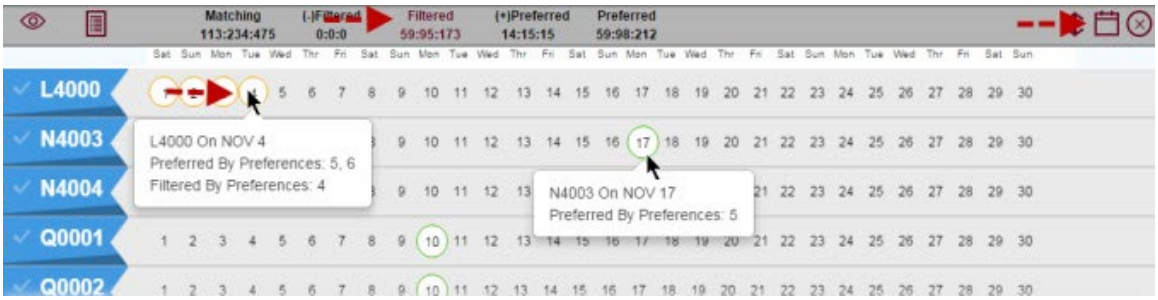
   bid analyzer results



3. Click on the dates view button.

4. Click on a heading to view results, Matching, (-)Filtered, Filtered, (+)Preferred or Preferred.

5. Hover your mouse or tap on a date with a yellow or green circle. Yellow indicates that the pairing has been removed and green indicates that a pairing has been added.



Note: you can only view one pairing instance at a time.

When you move your mouse over a pairing with a circle around it you can see the preferences associated with it. In the example you can see that pairing L4000 is preferred by preferences 5 and 6. However, the pairing is removed from consideration by bid 4.

Submit a Bid

See Off-line and On-line mode for information on the differences between off-line and on-line mode.

Save Your Bid

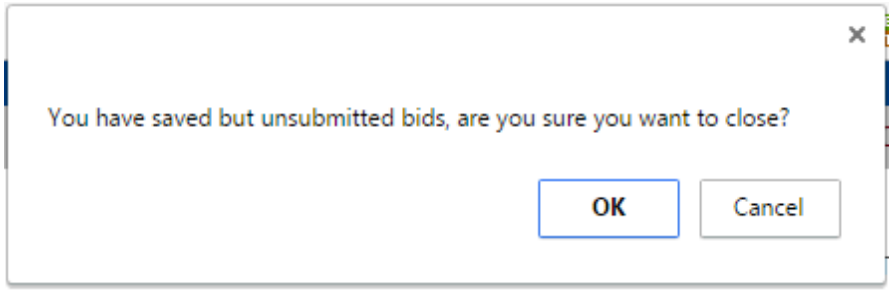
Active Save button. The button is active if you've made changes to your bid and you haven't saved it yet.

Inactive Save button. The button is inactive if you haven't made any changes to your bid or you have saved it.

You can save your bid any time that you make changes to it whether you are online or offline.

Save your bid if you are off-line and make changes to your bid. You cannot submit your bid if you are offline.

If you are online and have saved your bid but haven't submitted it you will see a reminder that you have saved your but haven't submitted it.



Important - If you click the back button on your browser or close the application you will lose any unsaved changes. You will be prompted to save changes if you log out using the log out button.

Submit Your Bid

See Bid Types for more information on Current, Default and Training bids.

See Off-line and On-line mode for information on the differences between off-line and on-line mode.

Current Bid

You can submit your Current bid as many times as you want while bidding is open. Contact your administrator if you are unsure when your bidding period is open.

Your Current bid, if submitted, is always used to build your line for the bid period. If you don't submit a current bid your Default bid is used. Your Reasons Report states what bid was used, either Current or Default.

Default Bid

You can submit you Default bid as many times as you want at any time that you have access to the system. Your Default bid is only used if you haven't submitted a Current bid.

Changes made to your Default bid after bidding closes don't take effect until the next bid period.

Submit Your Bid

Active Submit button. The button is active if you've made changes to your bid and you haven't submitted yet.

Inactive Submit button. The button is inactive if you haven't made any changes to your bid or you have submitted it.

Bid Validation: The NAVBLUE PBS interface validates your bid when you submit it. The validation ensures that you don't submit a bid with bid groups that will not be used by the N-PBS Scheduler. See Bid Validation for more information.

You can only submit your bid if you are connected to the Internet (on-line mode).

Important - When you click on Submit you are submitting your Current, Default and Training (if you have the Training module) bid to the N-PBS Scheduler. When you submit your bid you may see a message that not all bids have been submitted. The submit message will tell you what has been submitted and what hasn't. For example, if you submit a Default bid while Current bidding is closed you will see a message that your Default bid has been submitted, but your Current has not. You will always receive a confirmation number for any bid that has been submitted.

Important - If you have submitted a Current and a Default Bid for the current bid period. Your Current bid is always used to build a line for the bid period. Even if you submit a Default bid while bidding is open after you have submitted a Current bid. Any changes you made in your Default bid won't be used until the next period provided you don't submit a Current bid in the next bid period. Your Default bid is only used if you haven't submitted a Current bid.

The N-PBS Bidder displays a confirmation number at the top of the screen once your bid has been successfully submitted.

You can make changes to your bid up to the bid closing time. After bidding closes, you cannot change your Current or Default bids for the bid period that was just closed.

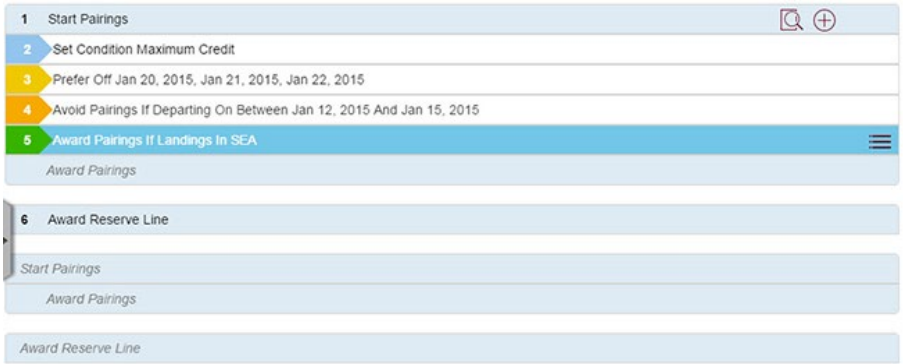
Standard Reserve - Bids That Can Be Submitted

Clear Schedule and Start Next Bid Group and Else Start Next Bid Group are taken into consideration with Coverage Awards. If the N-PBS Scheduler cannot honor a bid preference with an Else Start Next Bid Group option due to a Coverage Award it will move to the next bid group. Also, the N-PBS Scheduler will move to the next bid group if a Clear Schedule and Start Next Bid Group bid is present and a pairing is awarded through Coverage Awards using the system-generated Award Pairings bid.

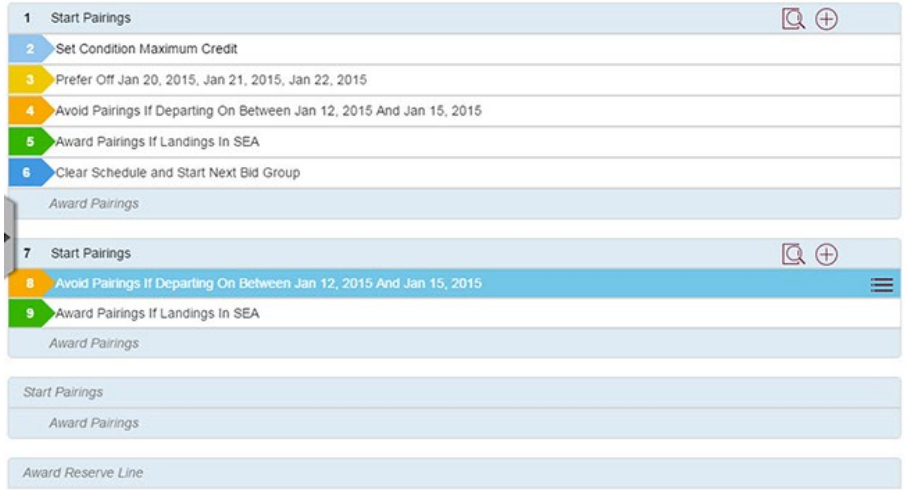
The N-PBS Bidder interface will allow the following bids to be submitted in Standard reserve.

System-generated bids and bid groups are not numbered.

This bid can be submitted because it contains 1 Pairing and 1 Reserve bid group. You can have the Pairing or Reserve bid group first.



This bid can be submitted because the first Pairing bid group has an Else Start Next Bid Group bid. If you have multiple bid groups of the same type, either Pairing or Reserve, all bid groups except for the last one must have this bid. See Else Start Next Bid Group for more information on how to use this bid.

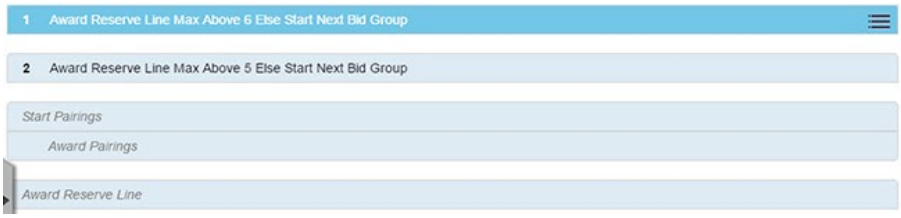


Standard Reserve - Bids That Cannot Be Submitted

Clear Schedule and Start Next Bid Group and Else Start Next Bid Group are taken into consideration with Coverage Awards. If the N-PBS Scheduler cannot honor a bid preference with an Else Start Next Bid Group option due to a Coverage Award it will move to the next bid group. Also, the N-PBS Scheduler will move to the next bid group if a Clear Schedule and Start Next Bid Group bid is present and a pairing is awarded through Coverage Awards using the system-generated Award Pairings bid.

The N-PBS Bidder interface will not allow the following bids to be submitted in Standard reserve.

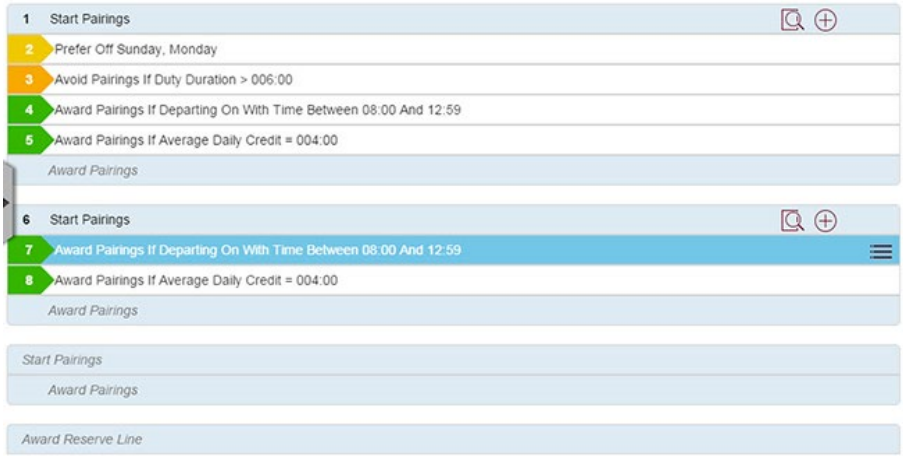
This bid cannot be submitted because the first Max Above is larger than the second Max Above. Else Start Next Bid Group is automatically added when you use the Max Above option.



You will see the following error message at the top of your bid.

> **Your bid cannot be submitted. You have entered an 'Award Reserve Line' bid group with a Max Above Option. All Max Above Options on an 'Award Reserve Line Bid' must be of a higher value than the one preceding it.. Edit your bid and resubmit.**

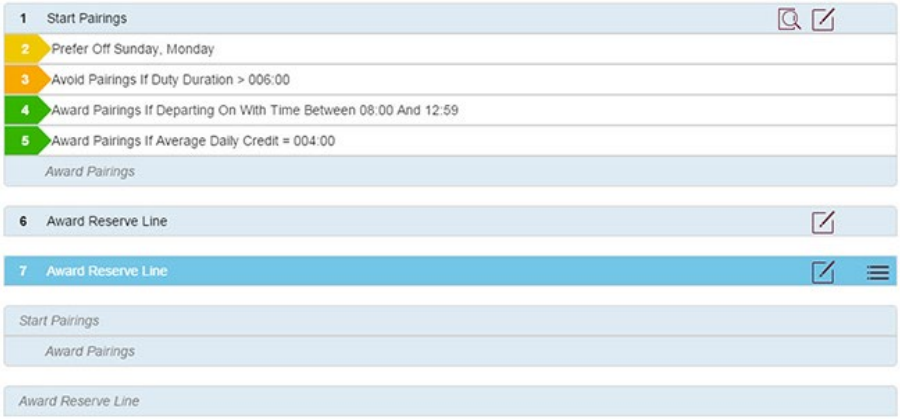
This bid cannot be submitted because the first Pairing bid group does not contain an Else Start Next Bid Group bid. If you have multiple bid groups of the same type, either Pairing or Reserve, all bid groups except for the last one must have this bid. See Else Start Next Bid Group for more information on how to use this bid.



You will see the following message at the top of your bid:

Your bid cannot be submitted. Your bid contains multiple 'Start Pairings' bid groups. Each Pairing Bid Group that you enter, except for your last one, must contain a bid preference with 'Else Start Next Bid Group' or a 'Clear Schedule and Start Next Bid Group' bid. Edit your bid and resubmit.

This bid cannot be submitted because it contains two Award Line Reserve bid groups and the first one does not contain an Else Start Next Bid Group option. If you have multiple bid groups of the same type, either Pairing or Reserve, all bid groups except for the last one must have this bid. See Else Start Next Bid Group for more information on how to use this bid.



You will see the following message:

Your bid cannot be submitted. You have entered multiple 'Award Reserve Line' bid groups. All 'Award Reserve Line' bid groups, except for the last one, must have the Max Above XX option. Edit your bid and resubmit.

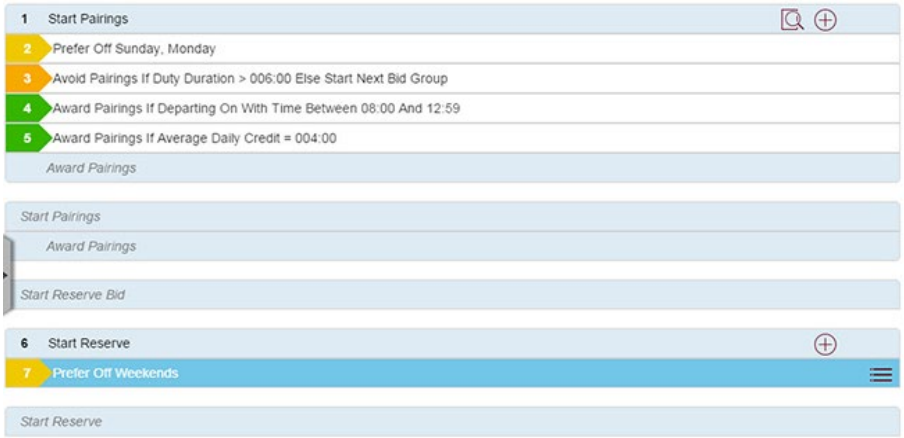
Consecutive Reserve - Bids That Can Be Submitted

Clear Schedule and Start Next Bid Group and Else Start Next Bid Group are taken into consideration with Coverage Awards. If the N-PBS Scheduler cannot honor a bid preference with an Else Start Next Bid Group option due to a Coverage Award it will move to the next bid group. Also, the N-PBS Scheduler will move to the next bid group if a Clear Schedule and Start Next Bid Group bid is present and a pairing is awarded through Coverage Awards using the system-generated Award Pairings bid.

The N-PBS Bidder interface will allow the following bids to be submitted in Consecutive reserve.

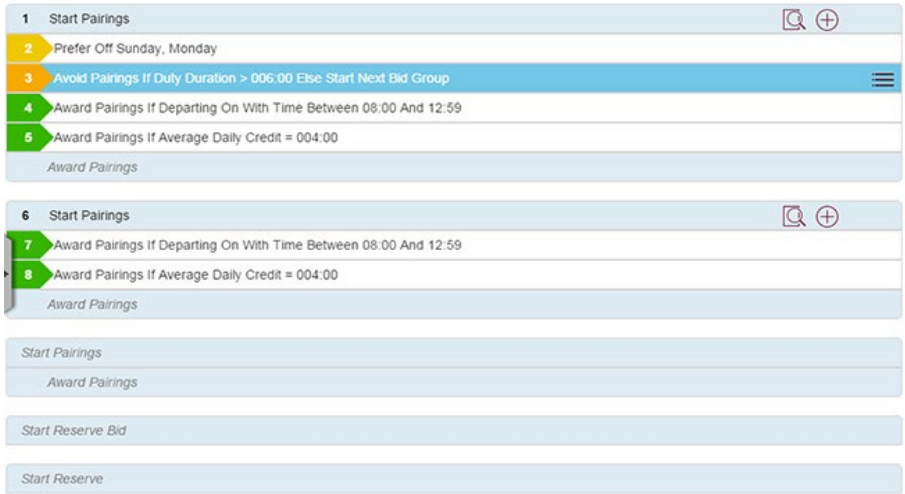
System-generated bids and bid groups are not numbered.

This bid can be submitted because it contains 1 Pairing and 1 Reserve bid group. You can have the Pairing or Reserve bid group first.

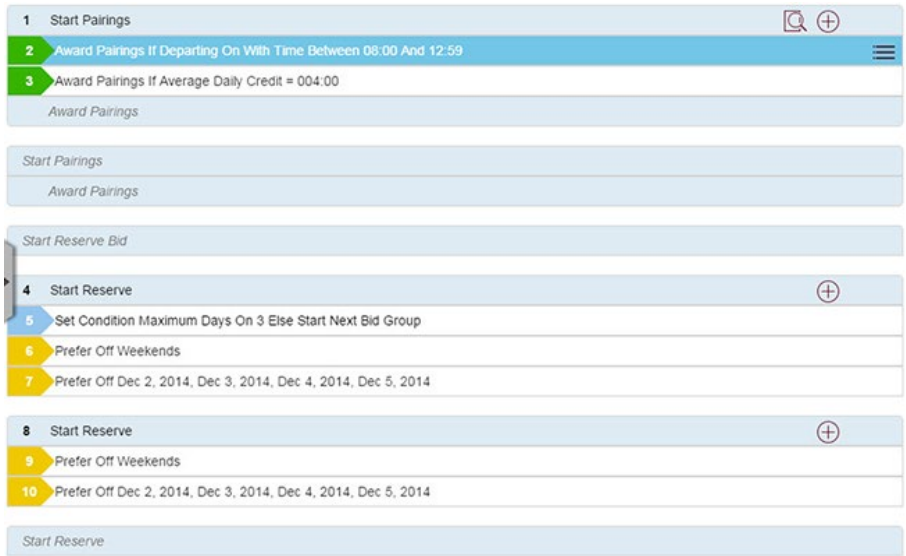


This bid can be submitted because the first Pairing bid group has a Else Start Next Bid Group option on bid 3. If you have multiple bid groups of the same type, either Pairing

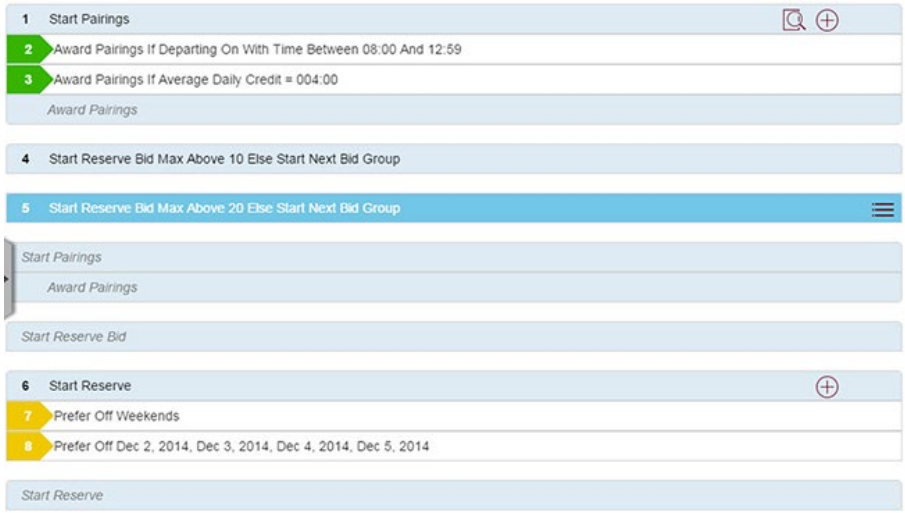
or Reserve, all bid groups except for the last one must have this bid. See Else Start Next Bid Group for more information on how to use this bid.



This bid can be submitted because the first Reserve bid group has a Else Start Next Bid Group option on bid 5. If you have multiple bid groups of the same type, either Pairing or Reserve, all bid groups except for the last one must have this bid. See Else Start Next Bid Group for more information on how to use this bid.



This bid can be submitted because the Max Above option on bid 4 is higher than the Max Above option on bid 5.



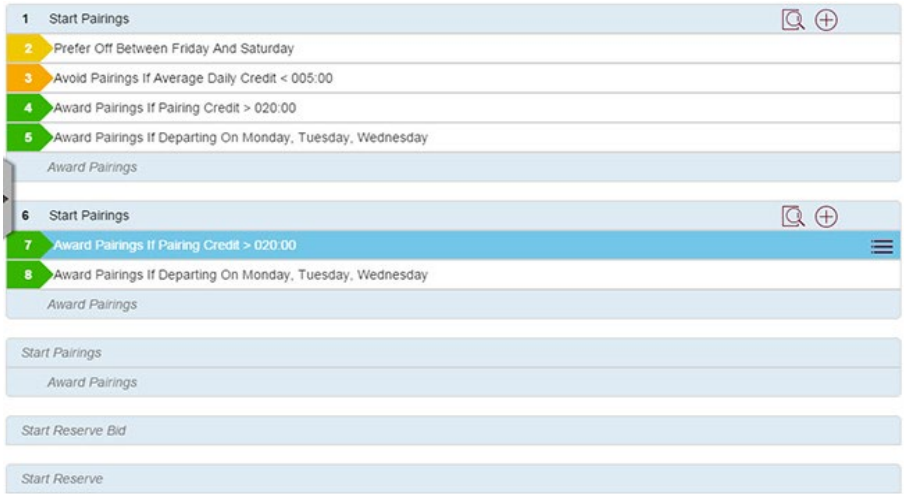
Consecutive Reserve - Bids That Cannot Be Submitted

Clear Schedule and Start Next Bid Group and Else Start Next Bid Group are taken into consideration with Coverage Awards. If the N-PBS Scheduler cannot honor a bid preference with an Else Start Next Bid Group option due to a Coverage Award it will move to the next bid group. Also, the N-PBS Scheduler will move to the next bid group if a Clear Schedule and Start Next Bid Group bid is present and a pairing is awarded through Coverage Awards using the system-generated Award Pairings bid.

The N-PBS Bidder interface will not allow the following bids to be submitted in Consecutive reserve.

This bid cannot be submitted because the first Pairing bid group does not contain an Else Start Next Bid Group bid. If you have multiple bid groups of the same type, either

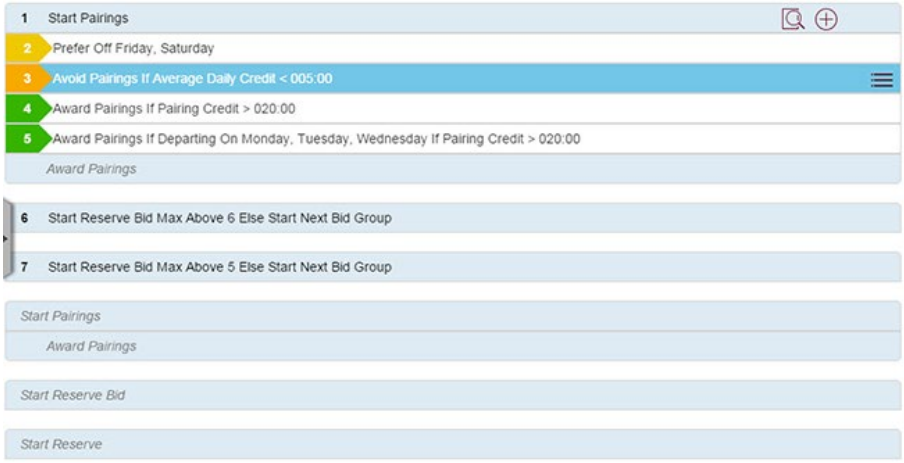
Pairing or Reserve, all bid groups except for the last one must have this bid. See Else Start Next Bid Group for more information on how to use this bid.



You will see the following message at the top of your bid:

> **Your bid cannot be submitted. Your bid contains multiple 'Start Pairings' bid groups. Each Pairing Bid Group that you enter, except for your last one, must contain a bid preference with 'Else Start Next Bid Group' or a 'Clear Schedule and Start Next Bid Group' bid. Edit your bid and resubmit.**

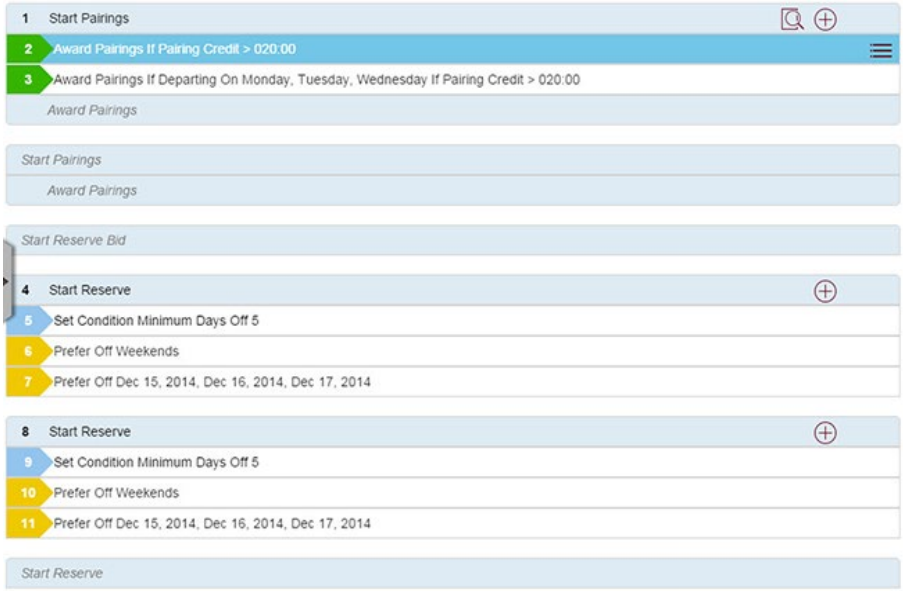
This bid cannot be submitted because the first Max Above on the Start Reserve Bid bid group is larger than the second Start Reserve Bid bid group.



You will see the following error message at the top of your bid.

> **Your bid cannot be submitted. You have entered a 'Start Reserve Bid' bid group with a Max Above Option. All Max Above Options on a 'Start Reserve Bid' must be of a higher value than the one preceding it.. Edit your bid and resubmit.**

This bid cannot be submitted because it contains two Reserve bid groups and the first one does not contain an Else Start Next Bid Group option. If you have multiple bid groups of the same type, either Pairing or Reserve, all bid groups except for the last one must have this bid. See Else Start Next Bid Group for more information on how to use this bid.



You will see the following error message at the top of your bid.

> **Your bid cannot be submitted. Your bid contains multiple 'Start Reserve' groups. Each 'Start Reserve' group that you enter, except for your last one, must contain a bid preference with an 'Else Start Next Bid Group'. Edit your bid and resubmit.**

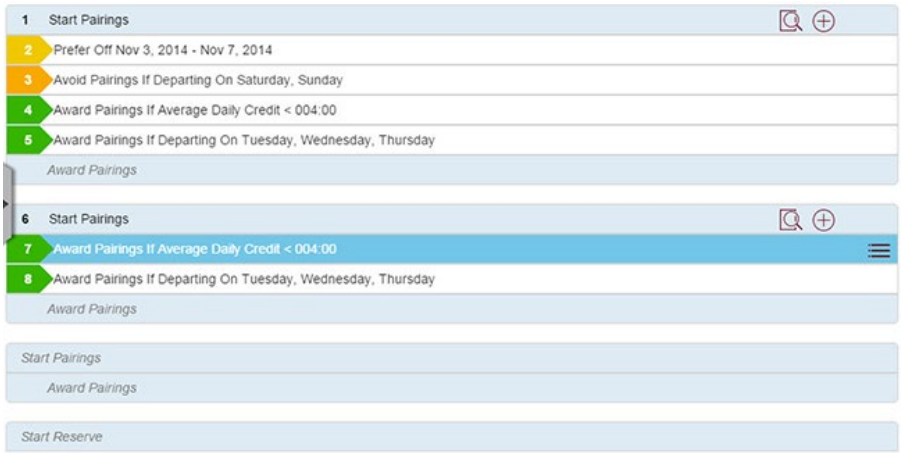
Concurrent Reserve - Bids That Cannot Be Submitted

Clear Schedule and Start Next Bid Group and Else Start Next Bid Group are taken into consideration with Coverage Awards. If the N-PBS Scheduler cannot honor a bid preference with an Else Start Next Bid Group option due to a Coverage Award it will move to the next bid group. Also, the N-PBS Scheduler will move to the next bid group if a Clear Schedule and Start Next Bid Group bid is present and a pairing is awarded through Coverage Awards using the system-generated Award Pairings bid.

The N-PBS Bidder interface does not allow you to add an RLL bid group as your first bid group.

The N-PBS Bidder interface will not allow the following bids to be submitted in Concurrent reserve.

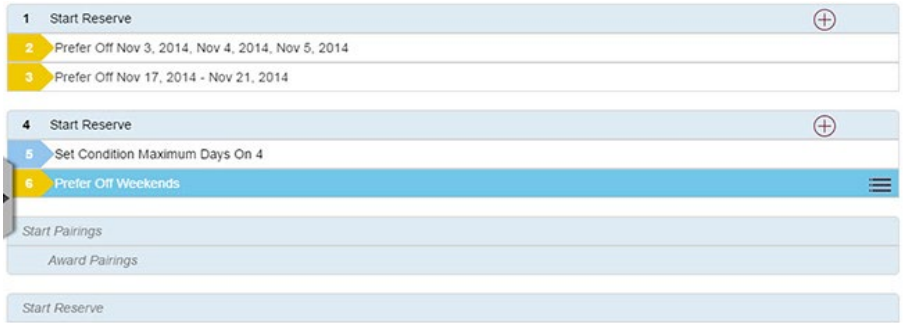
This bid cannot be submitted because the first Pairing bid group does not contain an Else Start Next Bid Group option or a Clear Schedule and Start Next Bid Group bid. If you have multiple bid groups of the same type, either Pairing or Reserve, all bid groups except for the last one must have this bid. See Else Start Next Bid Group for more information on how to use this bid option.



You will see the following error message.

> **Your bid cannot be submitted. Your bid contains multiple 'Start Pairings' bid groups. Each Pairing Bid Group that you enter, except for your last one, must contain a bid preference with 'Else Start Next Bid Group' or a 'Clear Schedule and Start Next Bid Group' bid. Edit your bid and resubmit.**

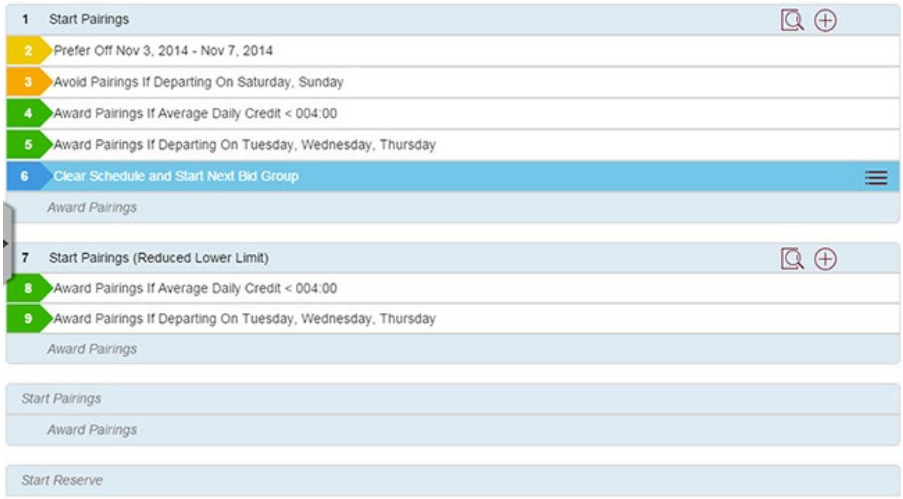
This bid cannot be submitted because it contains two Reserve bid groups and the first one does not contain an Else Start Next Bid Group option. If you have multiple bid groups of the same type, either Pairing or Reserve, all bid groups except for the last one must have this bid. See Else Start Next Bid Group for more information on how to use this bid.



You will see the following error message at the top of you bid.

> **Your bid cannot be submitted. Your bid contains multiple 'Start Reserve' groups. Each 'Start Reserve' group that you enter, except for your last one, must contain a bid preference with an 'Else Start Next Bid Group'. Edit your bid and resubmit.**

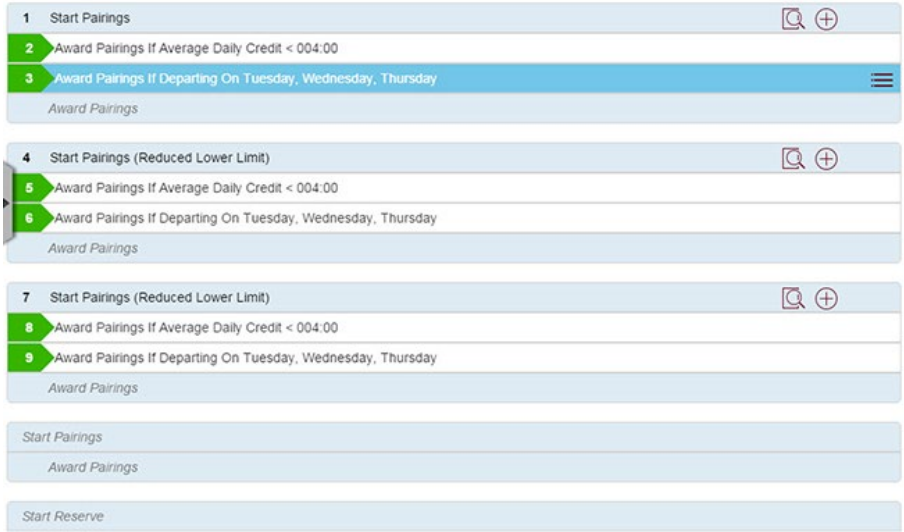
You cannot submit this bid because you have a Pairing bid group with an Else Start Next Bid Group option before an RLL bid group. Also, you cannot have a Reserve bid group with and Else Start Next option before an RLL bid group.



You will see the following error message.

> **Your bid cannot be submitted. Your bid must have at least 1 Non Reduced Lower Limit Pairing Bid Group without an Else Start Next Bid Group option or a Clear Schedule and Start Next Bid Group bid before you can enter a Reduced Lower Limit Bid Group. Edit your bid and resubmit.**

You cannot submit this bid because it contains multiple RLL bid groups and you don't have a bid preference with an Else Start Next Bid Group or a Clear Schedule and Start Next Bid Group in all of the RLL Bid Groups except for the last one.



You will see the following message.

> **Your bid cannot be submitted. Your bid contains multiple RLL bid groups. Each RLL Bid Group that you enter, except for your last one, must contain a bid preference with an Else Start Next Bid Group option or a Clear Schedule and Start Next Bid Group bid. Edit your bid and resubmit.**

Concurrent Reserve - Bids That Can Be Submitted

Clear Schedule and Start Next Bid Group and Else Start Next Bid Group are taken into consideration with Coverage Awards. If the N-PBS Scheduler cannot honor a bid preference with an Else Start Next Bid Group option due to a Coverage Award it will move to the next bid group. Also, the N-PBS Scheduler will move to the next bid group if a Clear Schedule and Start Next Bid Group bid is present and a pairing is awarded through Coverage Awards using the system-generated Award Pairings bid.

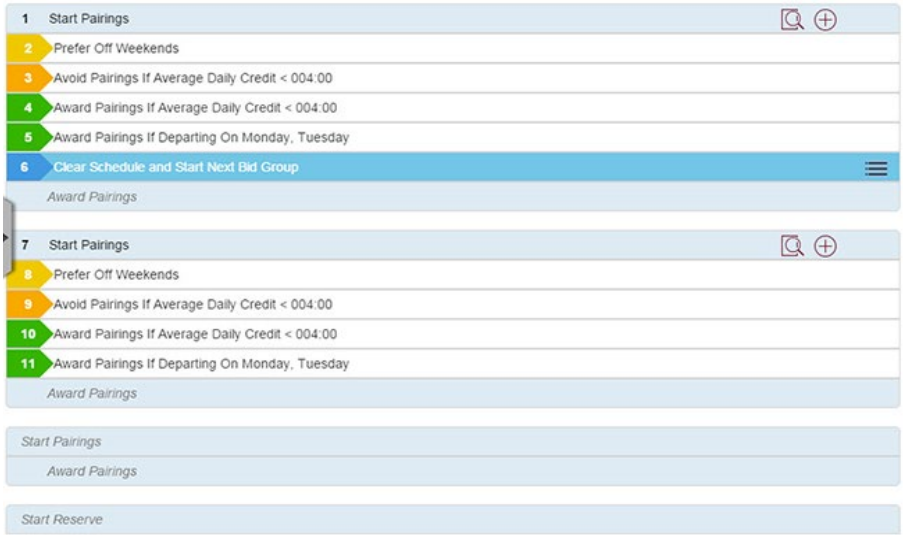
The N-PBS Bidder interface does not allow you to add an RLL bid group as

your first bid group.

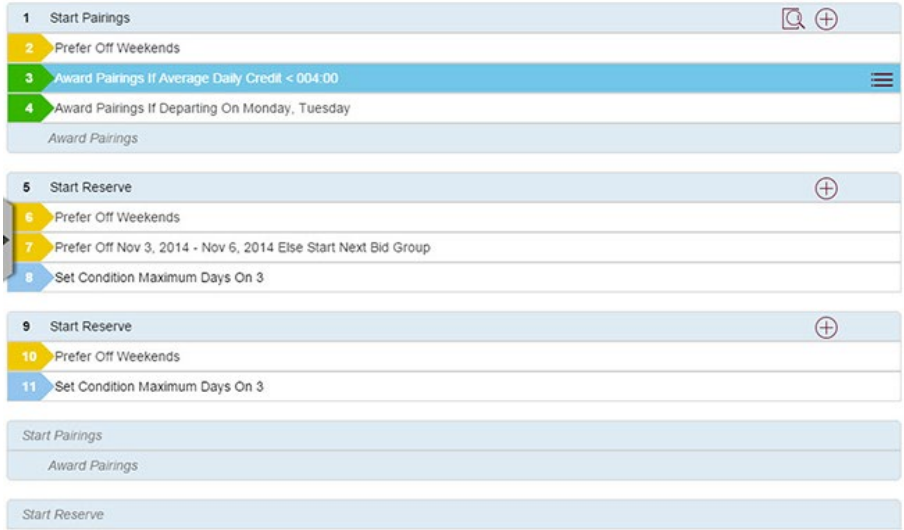
The N-PBS Bidder interface will allow the following bids to be submitted in Concurrent reserve.

This bid can be submitted because it contains 1 Pairing and 1 Reserve bid group.

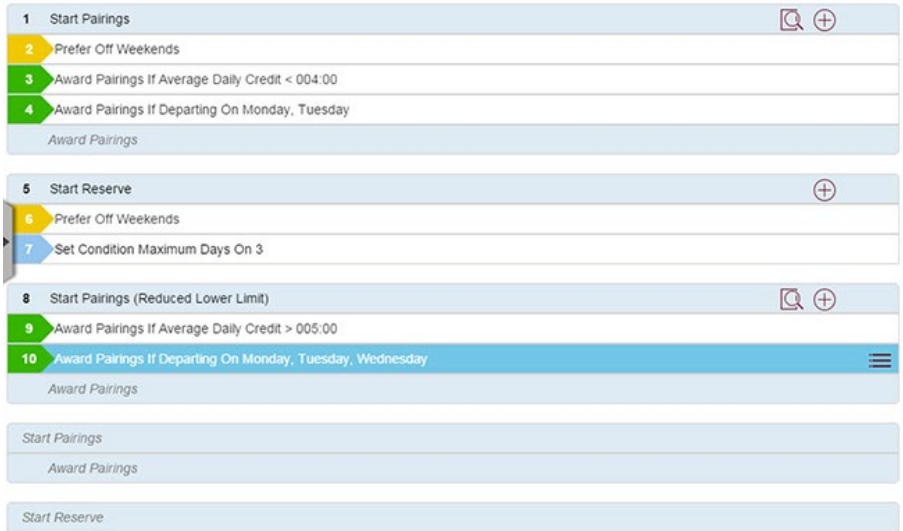
This bid can be submitted because the first bid group has a Clear Schedule and Start Next Bid Group at bid 6. You could also have an Else Start Next Bid Group option on one of the negative bid preferences. You can have multiple bid groups, either Pairing or Reserve, provided you an Else Start Next Bid Group option or a Clear Schedule and Start Next Bid Group bid in all but the last non-RLL bid group.



This bid can be submitted because the first Reserve bid group has an Else Start Bid Group option on bid 3. You can have multiple bid groups, either Pairing or Reserve, provided you an Else Start Next Bid Group option or a Clear Schedule and Start Next Bid Group bid in all but the last non-RLL bid group.

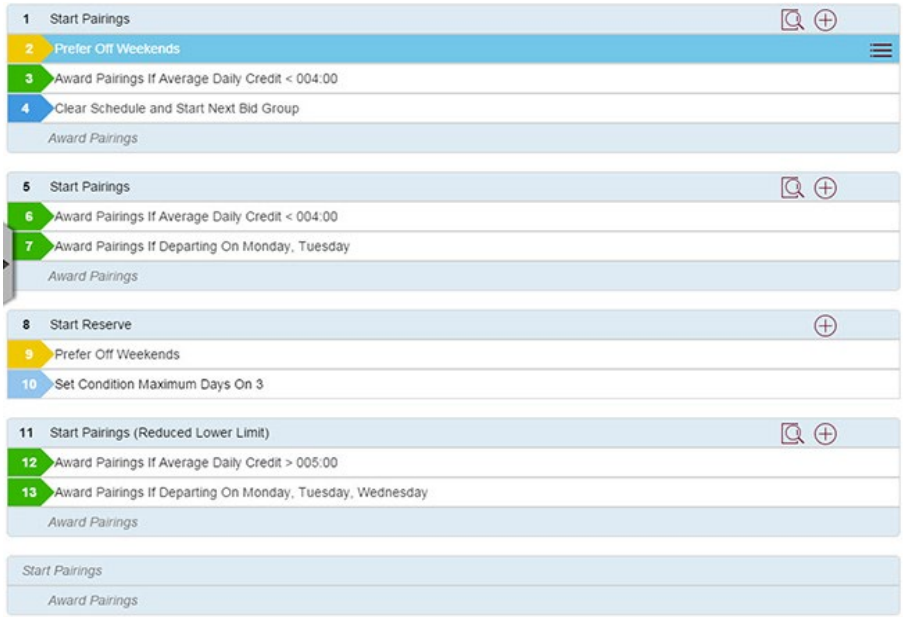


This bid can be submitted because the bid groups before the RLL bid group do not contain an Else Start Next Bid Group option or a Clear Schedule and Start Next Bid Group bid.



This bid can be submitted because there is a Pairings bid group without an Else Start Next Bid Group option or a Clear Schedule and Start Next Bid Group bid after a Pairing bid group with these options. You can have multiple pairings and reserve bid groups

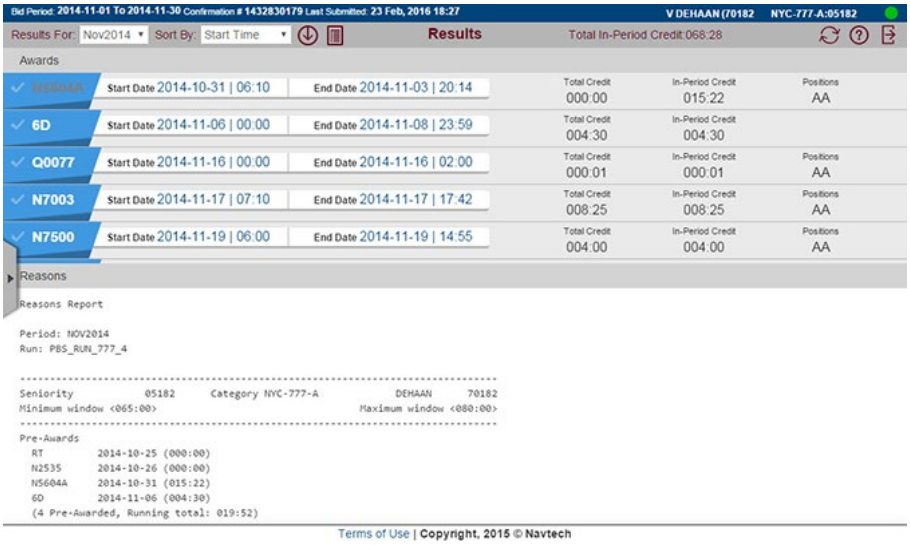
with RLL bid groups provided you an Else Start Next Bid Group option or a Clear Schedule and Start Next Bid Group bid in all but the last non-RLL bid group.



Results Screen

The Results screen displays the pairings you have been awarded for the current bid period, as well as the Reasons Report explaining how the N-PBS Scheduler handled each of your bid preferences. Results are displayed after your administration has finished processing the awards and has published the results.

results screen



Awards - Quick View

See Buttons for a list of the buttons on each screen and their function.

The gray bar at the top of the screen displays the credit for the period. Also from here you can view results from past periods, sort your awards on the available criteria and view multiple pairing reports. You can click on a pairing number to view a single pairing report.

The Results screen has two sections, Awards and Reasons.

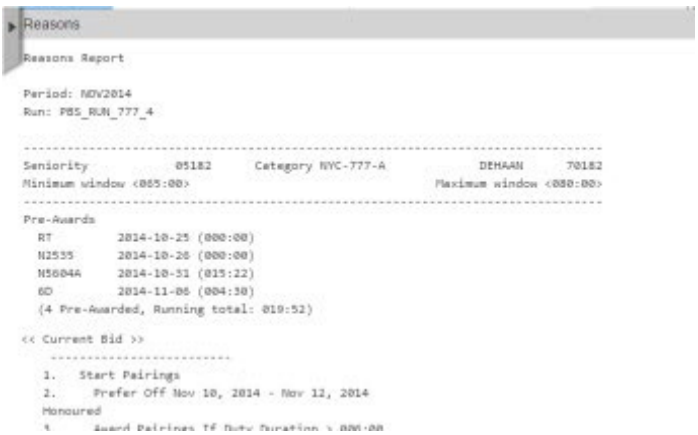
Awards

awards

The Awards pane displays the pairings that you have been awarded for the current bid period. By default each pairing is displayed on a separate line, arranged chronologically by date and time. You can sort activities and change the order of display. The Awards section also displays training, vacation, or other activities that were considered during scheduling.

Reasons Report

sample reasons report



The Reasons report shows the results of each bid preference in your bid. This information can prove useful when bidding in the next period.

Each bid preference is numbered, and appears on the Reasons report followed by any pairings that were awarded as a result of the bid preference, and an explanation of how the bid preference affected your block.

Carry-out pairings are marked with an asterisk (*).

Reasons Report Definitions

This section explains all of the potential reasons that might appear on your Reasons report.

Awarded by previous bids: X X number of pairings matched this bid preference, and were already awarded by a previous bid

Awarded for coverage under a different bid pairings matching this bid preference were already awarded, and are listed under a different bid preference

Awarded to senior bidder pairings matching this bid preference were already awarded to a bidder with higher seniority than you

Awarded to senior shadow bidder pairings matching this bid preference were already awarded to a shadow bidder with higher seniority than you

Best Line Before the N-PBS Scheduler attempted to build a pairing block, but it could not be built using your bid preferences and the criteria set by the Administrators, so the N-PBS Scheduler moved to your next bid group, the results of this attempt are listed in your Reasons report

Best Line Before Empty: No Pairing Awards Possible the best line before is empty, the N-PBS Scheduler could not build a block with the pairings left in the available pairing pool

Best Line Before Empty: Available Pairing Credit Insufficient (Line Not Attempted) the previous pairing completion attempt produced an empty best line before because there was insufficient available pairing credit to build a line so it was not attempted

Best Line Before Empty: Block Time Limit Insufficient (Line Not Attempted) the previous pairing completion attempt produced an empty best line before because the N-PBS Scheduler calculated that a crewmember's Block Time Limit makes it unrealistic to complete a block

Best Line Before Empty: SLG Could Not Find Line Including Priority Stack Date an SLG completion attempt produced an empty best line before because SLG quit early as it was required to include the priority stack date and could not

Beyond bid limit: X X number of additional pairings matched this bid preference, but none were awarded because you placed a limit on the bid preference

Bid denied this bid preference was denied, and there are pairings on your block that contradict this preference

Block is complete this bid preference was not used to build your pairings because your pairings block was already complete before reaching this point.

> If a number appears after the "Block is complete" reason, it indicates the number of pairings that matched the bid but were not awarded because your block was already complete. That is, it reached the minimum or threshold credit value.

Buddy cannot take pairing your buddy could not be awarded this pairing, so it can't be awarded to you either

Could Not Build Complete Line with Pairing the pairing is available legally but cannot be used because it could not be fit into your block and still build a complete block

Does not help required language coverage the pairing is required to help with specific language coverage and the pairing does not help with your required language coverage

Filtered by higher bid: X X number of pairings matched this bid preference, but were filtered out of the available pairings pool by Avoid Pairings or Prefer Off bid preferences that were higher in your bid

Followed By sequence not found no series of pairings could be found that matched your Followed By bid preferences

Forgotten a Forget instruction was honored, and the N-PBS Scheduler ignored this bid preference

Honored this bid preference was used, and there are no pairings on your block that contradict this preference

Item overlaps with another: X X number of pairings matched this bid preference, but overlapped with something already awarded

Matching: X the total number of pairings that match this bid preference

Maximum Max-Credit bidders Reached - the maximum number of Maximum Credit blocks have already been awarded

Maximum Reduced Lower Limit Line Reached - the maximum number of RLL lines were awarded to senior bidders

Minimum Base Layover line condition violated the minimum base layover line condition could not be met with this bid preference, and some layovers are shorter than the minimum time requested

Maximum Min-Credit bidders Reached - the maximum number of Minimum Credit blocks have already been awarded

Needed for Legality this pairing was awarded from a lower bid preference to honour either a Min Days Off, Min Days On or Pattern Set Condition bid preference

Not considered this bid preference was denied, but there are no pairings on your block that contradict this preference

Not-Considered Below Reduced Lower Cutoff - you are below the RLL cutoff as defined by the administrator

Not-Considered Reduced Block - this means that you are defined as a reduced block bidder; reduced block bidders cannot be awarded an RLL block

Not honored this bid preference was denied, and there are pairings on your block that contradict this preference

Not qualified for language you did not have the language qualification necessary for these pairings

Not used this bid preference was not used to build your block; either because your block was already complete or because you used a Clear Schedule and Restart bid preference

No pairings available no pairings that met your Avoid Pairings and TimePrefer Off bid preferences were available to be awarded, usually because too many pairings were

eliminated from the pairings pool by your Avoid Pairings and TimePrefer Off bid preferences

Partially honored this Prefer Off bid preference was used, but there are also pairings on your block that contradict a portion of this preference. If you submit a range of dates that you want to be free of duty, the N-PBS Scheduler may be able to honor part of the range but not all of it, resulting in a partially honored bid preference.

Restricted location you were not qualified for the locations of the available pairings your personal profile restricts you from landing in stations in the available pairings

[Rule violation] an FAR rule, or other legal consideration, prevented this bid preference from being honored The rule is identified in the reason included on your report.

Over maximum credits for period the pairing would have caused your block to exceed the maximum credit value for the bid period

Prevents assignment of minimum GDO the pairing would have caused your block to contain more than two single GDOs

Too many above you were not awarded a reserve block because the number of reserve blocks already awarded to senior bidders exceeded your maximum number

Violates green on green the pairing could not be awarded without violating the green on green rule

Additional Messages

You may see the following messages at the top of your Reasons report. These messages indicate that the N-PBS Scheduler had to ignore some of your preferences in order to give you a complete block or meet legal requirements or airline targets.

Affected By Denial Mode the N-PBS Scheduler had to deny some or all of your bids in order to build you a complete block

Affected by SLG the N-PBS Scheduler could not build you a block using any of your preferences and reached the end of Denial mode, so your block was built using secondary line generation (SLG)

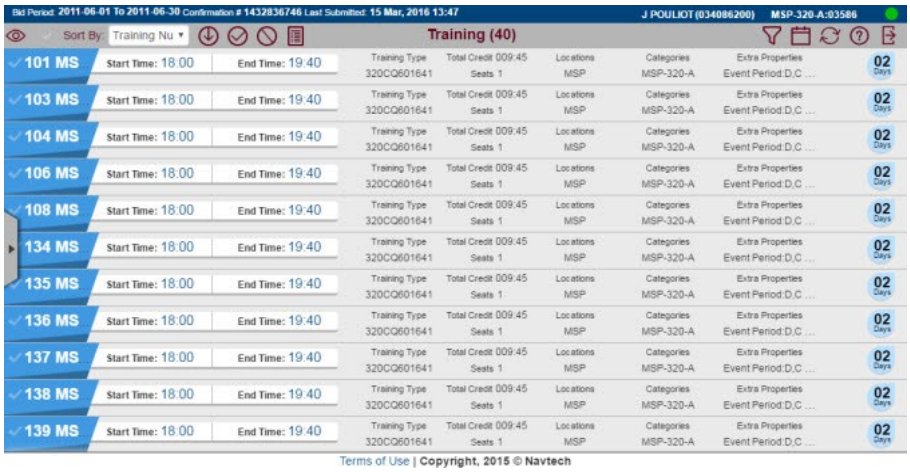
Affected By Coverage a pairing or pairings were forced onto your block in order to meet airline targets for total number of pairings remaining in open time

Training Screen

Training Module Overview

When you log in to the N-PBS Bidder you will be notified on the Info page if you have training requirements. See, Training Requirements for more details.

Administrator allocation requirements must be met and take top priority. This means bid preferences can be denied to meet these requirements, however, senior bid preferences are not denied to meet bid preferences of junior crewmembers. See Training Processing Logic for more information.



The NAVBLUE N-PBS Training Module allows you to bid for training patterns according to your individual likes and dislikes.

The bids that you submit using the N-PBS Bidder are submitted to the N-PBS Scheduler. Your bids and the training events and other parameters in the N-PBS Scheduler added by your administrator are used to automatically award training patterns for the bid period.

The N-PBS Scheduler considers each crewmember's seniority and bid when awarding training patterns and ensures that the awarded training events meet as many crewmember preferences as possible, while also meeting legal requirements and the airline's targets for training utilization. Training patterns are awarded strictly according to the seniority and training state of each bidder, with the most senior bidder's training pattern awarded first, and the most junior bidder's training pattern awarded last. There are three training requirement states: Must Go, May Go and Early (Early is not used in all configurations). Your administrator sets your training state based on your requirements.

Along with your awarded training patterns, the N-PBS Bidder provides a Reasons Report that identifies whether or not each bid preference was fulfilled, and also provides detailed explanations for awards and denials.

Important - When you click on Submit you are submitting your Current, Default and Training (if you have the Training module) bid to the N-PBS Scheduler. When you submit your bid you may see a message that not all bids have been submitted. The submit message will tell you what has been submitted and what hasn't. For example, if you submit a Default bid while Current bidding is closed you will see a message that your Default bid has been submitted, but your Current has not. You will always receive a confirmation number for any bid that has been submitted.

Related Topics

Training Bid Structure

Training Module Processing Logic

Allocation of Training Pattern Awards

Training Requirements

When you log in to the N-PBS Bidder you will be notified on the Info page if you have training requirements.

Bidder Details section on Info screen

There are 3 training requirement states depending on your Training Module configuration:

- Must Go
- May Go
- Early

Early is not used in all configurations of the Training Module.

Related Topics

Avoid Voluntary Training Example

Training Module Processing Logic

Allocation of Training Awards

Must Go

If your training requirement is must go:

- the Info screen will display the training type and the text Must Go
- Training bids will be the default when you go to the Bids tab
- the N-PBS Scheduler will attempt to honor your bids, but you will still be awarded a training pattern even if your bids cannot be honored
- the Avoid Voluntary Training bid line will be ignored

May Go

Crew members with requirements flagged as May Go are not required to take training in the next period but still may be awarded training patterns due to their seniority and requirements set by the administrator.

If your training requirement is may go:

- the Info screen will display the training type and the text May Go
- training bids are the default when you go to the Bids tab
- the Avoid Voluntary Training bid line can be used, but you might be awarded training patterns to meet administrator requirements
- if you are awarded a training pattern the N-PBS Scheduler will attempt to honor your bids but administrator requirements take priority

Seniority

- the N-PBS Scheduler ranks a senior's bid preferences above a junior crew member
- if the minimum May Go requirement can still be met, a senior May Go bidder can avoid training and the N-PBS Scheduler will award training to the junior Early

Early is not used in all configurations of the Training Module.

Early

Early is not used in all configurations of the Training Module.

If your training requirement is Early:

- the Info screen will display the training type and the text Early
- training bids are the default when you go to the Bids tab
- the Avoid Voluntary Training bid line can be used, but you might be awarded training patterns to meet administrator requirements
- if you are awarded a training pattern the N-PBS Scheduler will attempt to honor your bids but administrator requirements take priority

Seniority

- the N-PBS Scheduler ranks a senior's bid preferences above a junior crewmember
- if the minimum May Go requirement can still be met, a senior May Go bidder can avoid training and the N-PBS Scheduler will award training, if necessary, to junior Early crewmembers

Allocation of Training Patterns Awarded

300 Bidders for the period and 200 training patterns are available

100 Bidders have Must Go requirements

100 Bidders have May Go requirements

100 Bidders have Early Requirements

Administrator requirement Minimum Percentage of May Go's is set at 25% - this value is set by the administrator

(this example assumes that no bidders have more than 1 requirement)

- 100 Must Go bidders will be awarded 100 training patterns
- at least 25 of 100 May Go bidders will be awarded training patterns - May Go bidders may have their preferences denied to reach this number
- 75 further awards will be made if all training patterns are Junior Assign (meaning that they must be awarded) - depending on their bid preferences these may be Early or May Go bidders - see Junior Assign for more information

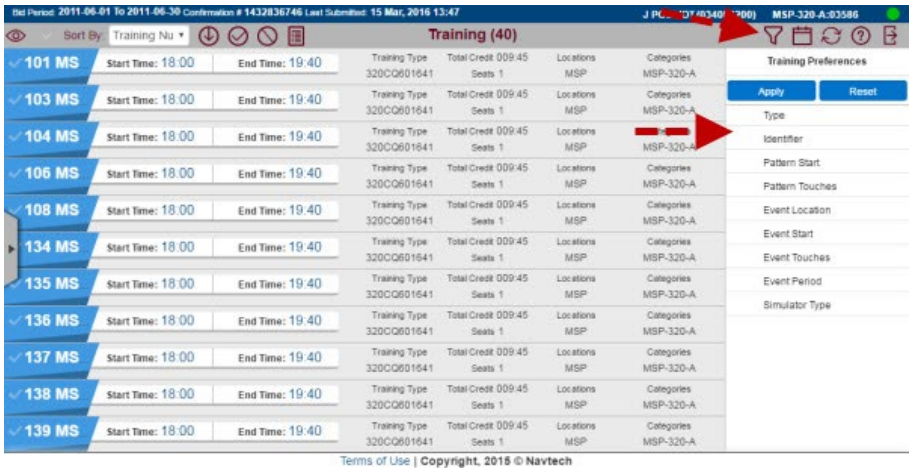
Remember that bid preferences of senior bidders are always taken into consideration, however it is not always possible to honor all bid preferences due to seniority, training patterns available and administrator requirements

Search for Training Patterns

To search for training patterns:

1. Go to the Training screen.

2. Click on the Show filters button to open the Training Preferences editor.



3. Use the Training Preferences editor to enter your search criteria. The Training Preferences editor has the same functionality as the Pairing Preferences editor.

4. Click the **Apply** button.

The matching training patterns are displayed on the Results tab.

If a search returns too many training patterns, you can continue to refine the search by adding or changing search criteria and clicking on the Search button again.

You can also bid for or avoid training patterns from this screen. The process to bid for and avoid patterns is the same as bidding for or avoiding pairings. See Add Bids from Search for more information.

View Training Pattern Details

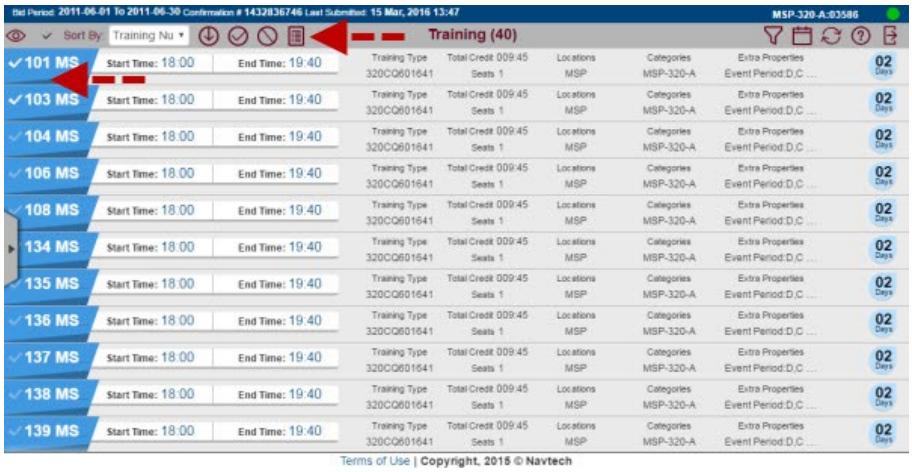
The N-PBS Scheduler displays the results of a search on the Results tab. You can see summary information about each training pattern, but you can also view the complete details for one or more training patterns.

A training pattern with Yes beside Junior Assign means that the N-PBS Scheduler will award this training pattern to junior May Go and Early crewmembers even if they bid for no training patterns in the month. See Junior Assign and Avoid Voluntary Training

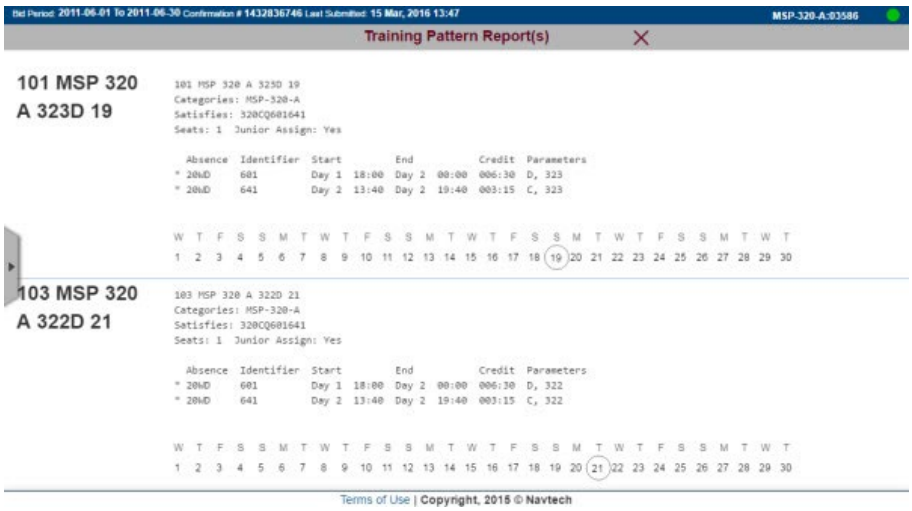
There are two ways to view training reports. You can click on a Training Pattern Number to view the report in the Training screen. The instructions below show you how to view reports on a new screen.

To view training pattern details

1. Click one or more check mark beside the pattern number.



2. Click the Show Training Report button.



3. The Training Report or Reports are displayed in a new screen. Click the red X to return to the Training screen.

Training Bid Structure

When you first navigate to the training bid screen you will see an empty bid with three system-generated bid lines. Adding Training Bid Preferences is the same as adding bid preferences into Pairing and Reserve bid groups.

```
Start Training
    Avoid Voluntary Training
    Award Training
```

Start Training

Start Training is always at the start of the bid and cannot be moved or edited. This bid line instructs the N-PBS Scheduler to begin building a training block.

Avoid Voluntary Training

Avoid Voluntary Training cannot be edited but it can be moved anywhere in your bid between Start Training and Award Training. This bid tells the N-PBS Scheduler that you do not want to be awarded training if you are not required to. However, you can be forced voluntary Training based on settings placed by your administrator and your Seniority.

You cannot avoid Voluntary Training if your Training Requirement is Must Go.

Award Training

Award Training is always at the end of your bid and cannot be edited or moved. This bid means Award Any Item if a training pattern must be awarded and earlier bids do not express any preference.

Related Topics

Avoid Voluntary Training Example

Training Module Processing Logic

Allocation of Training Awards

Add a Training Bid

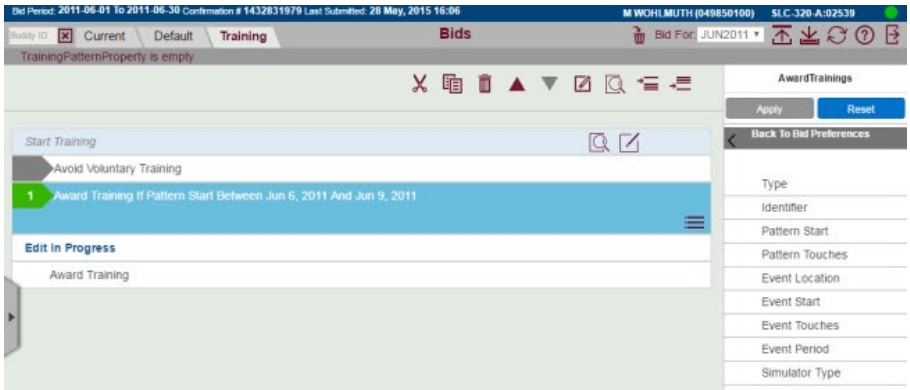
You can also analyze your training bid. The analyze functionality for training bids is the same as pairing bids. See the Bid Analyzer section for details.

To add a training bid:

1. Click on the Training tab.

2. Click on the plus button to open the Training Preferences editor. The Training Preferences editor has the same functionality as the Pairing Preferences editor.

3. Use the Training Preferences editor to add bid preferences and its options.



4. Click Apply to add the bid preference.

Avoid Voluntary Training

Avoid Voluntary Training is ignored if your training requirement is Must Go.

Avoid Voluntary is ignored if training events need to be filled and bidders with more seniority have avoided voluntary training. Your administrator sets a requirement for the minimum May Go that must be filled. The administrator also sets the Junior Assign

status to each training pattern, if a pattern is set as Junior Assign the N-PBS Scheduler must award all of seats on the pattern.

The placement of the Avoid Voluntary Training bid is important. This bid tells the N-PBS Scheduler that you would prefer to get no training unless a training pattern is ranked as preferred based on your Award, Avoid or Prefer Off bids above it. If you are still awarded a training pattern this bid is ignored and your entire bid is used to award you a training pattern.

```
Start Training
1. Prefer Off Jun 20, 2011
2. Avoid Training If Equipment Type 2
3. Award Training If Start Time > 15:00
    Avoid Voluntary Training
4. Award Training If Training Starts June 15, 2011
Award Training
```

Avoid Voluntary Training after bid 3 tells the N-PBS Scheduler that you would prefer **no voluntary training event** if it cannot award you training that starts after 15:00 that gives you June 20th off while avoiding equipment type 2. If you cannot avoid voluntary training the N-PBS Scheduler will attempt to award training that starts June 15.

Related Topics

Junior Assign Training Patterns

Training Module Processing Logic

Training Module Processing Logic

Administrator allocation requirements must be met and take top priority. This means bid preferences can be denied to meet these requirements, however, senior bid preferences are not denied to meet bid preferences of junior crewmembers.
The N-PBS Scheduler considers all administrator requirements and bid preferences in seniority order as follows:

1. Satisfy all Must Go requirements
2. Satisfy at least the minimum May Go requirements or, failing that, satisfy as many May Go requirements as possible
3. Allocate all seats on all training patterns with the Junior Assign flag or, failing that, allocate as many Junior Assign seats as possible in total
4. Honor Bid Preferences of the number 1 seniority person as well as possible
5. Honor Bid Preferences of the number 2 seniority person as well as possible
6. Honor Bid Preferences of the number 3 seniority person as well as possible and so on through the training seniority list

How the N-PBS Scheduler Awards Training Patterns

When awarding training patterns the N-PBS Scheduler has several run levels. In each level the N-PBS Scheduler attempts to satisfy the priorities in the order given above. When the N-PBS Scheduler reaches the bid honoring steps it attempts to rearrange awarded training patterns match bid preferences of each bidder in seniority order. As the run levels progress the N-PBS Scheduler uses a wider set of rearrangement techniques.

Run Level Processing Steps:

1. The N-PBS Scheduler makes awards, or rearranges awards to satisfy all Must Go requirements
2. The N-PBS Scheduler makes awards, or rearranges awards to satisfy at least the minimum May Go requirements
3. The N-PBS Scheduler makes awards, or rearranges awards to satisfy-as well as possible-the training patterns flagged as Junior Assign
4. The N-PBS Scheduler, in order of seniority, reads crewmember's bids and attempts to make awards or rearrange awards to honor as many bid preferences as possible - these rearrangement techniques become more complex as the run progresses

While the N-PBS Scheduler is using rearrangement techniques to honor bid preferences it must maintain the objectives satisfied in Steps 1 to 3.

Training Processing Logic Examples

Administrator allocation requirements must be met and take top priority. This means bid preferences can be denied to meet these requirements, however, senior bid preferences are not denied to meet bid preferences of junior crew members.

Two Crew Members with Must Go Requirements

- Both crewmembers are flagged as must go and there are only 2 training patterns available, A and B
- The senior crewmember can legally take A and B but would prefer to take A

- The junior crewmember cannot legally take B and can only attend A

Result

The N-PBS Scheduler would award B to the senior crewmember and the junior would get A.

The need to allocate all training to all crewmembers flagged as must go takes priority over bid preferences.

Senior bid preferences can also be denied to meet the administrator requirements for may go.

Two Crew Members with May Go and Must Go Requirements

The senior crewmember's requirement is flagged as may go while the junior crewmember's requirement is flagged as must go and there are only 2 training patterns available, A and B.

The senior has volunteered for training, and would prefer to take A and can legally take A or B.

The junior crewmember would prefer A and can legally take A or B.

Result

The N-PBS Scheduler would award A to the senior and the junior would be awarded B.

Crew Members with Early Requirements

Senior crewmembers flagged as early also have priority over junior crewmembers provided the administrator requirements are satisfied.

If the minimum May Go requirement has been met, the senior May Go bidder can avoid training and the N-PBS Scheduler will force training, if required, on junior Early crewmembers.

Early is not used in all configurations of the Training Module.

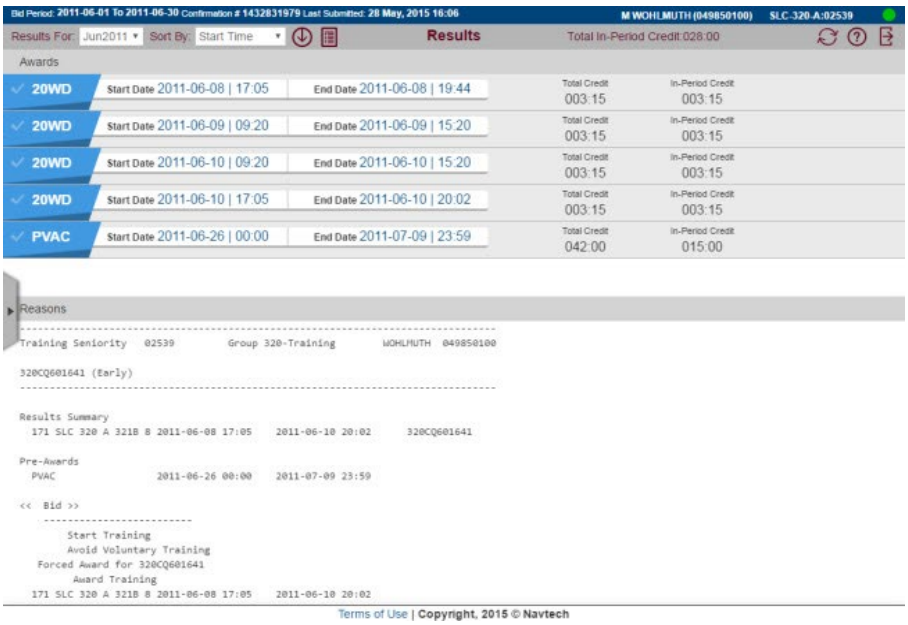
View Your Training Awards

The Results screen displays the training patterns you have been awarded for the current bid period, as well as the Reasons Report explaining how the N-PBS Scheduler handled each of your bid preferences.

The Results tab shows you the scheduling results for the current training bid period, but it does not display your final block.

The Awards pane displays the training patterns that you have been awarded for the current bid period. Each training day of the training pattern is displayed on a separate line, arranged chronologically by date and time.

Each bid preference is numbered, and appears on the Reasons report followed by any training patterns that were awarded as a result of the bid preference, and an explanation of how the bid preference affected your award.



Training Reasons Report Definitions

This section explains all of the potential reasons that might appear on your Training Reasons report.

Awarded by previous bids: X X number of training patterns matched this bid preference, and were already awarded by a previous bid

Awarded to senior bidder: training patterns matching this bid preference were already awarded to a bidder with higher seniority than you

Complete Solution Not Found: no rearrangements exist to complete the award (including all juniors) while maintaining all overall administrator constraints.

Not honored: this bid preference was denied

Pre-awarded to junior bidder: this training pattern was pre-awarded to a junior bidder

No training patterns available: no training patterns that met your Avoid Patterns and Prefer Off bid preferences were available to be awarded, usually because too many training patterns were eliminated from the training patterns pool by your Avoid Patterns and Prefer Off bid preferences

Partially honored: this Prefer Off bid preference was used, but there are also training patterns that contradict a portion of this preference. If you submit a range of dates that you want to be free of duty, the N-PBS Scheduler may be able to honor part of the range but not all of it, resulting in a partially honored bid preference.

Required for Junior Must Go bidders: – the training pattern is held by a junior Must Go bidder, no rearrangements can be made to award the bid preference and satisfy the junior's Must Go requirement

[Rule violation]: a legal consideration, prevented this bid preference from being honored The rule is identified in the reason included on your report.

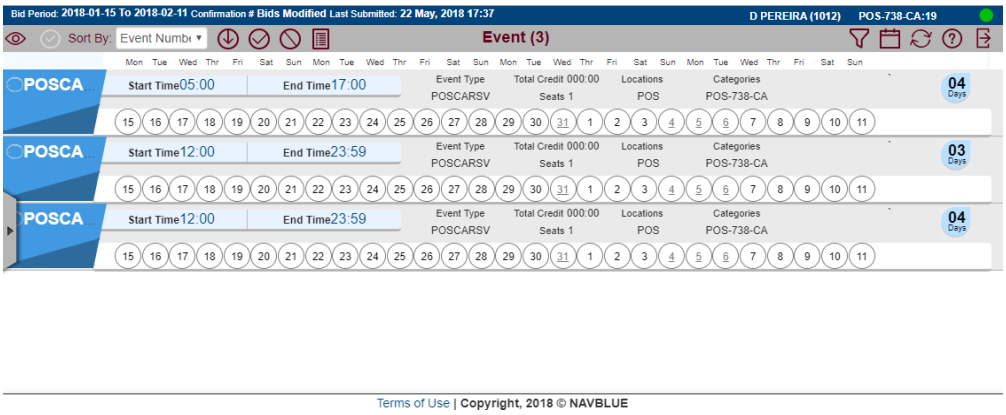
Would violate bid X: this bid violates a previous bid

Event Screen

Event Module Overview

When you log in to the N-PBS Bidder you will be notified on the Info page if you have Event requirements. See, Training Requirements for more details.

Administrator allocation requirements must be met and take top priority. This means bid preferences can be denied to meet these requirements, however, senior bid preferences are not denied to meet bid preferences of junior crewmembers. See Training Processing Logic for more information.



The NAVBLUE N-PBS Event Module allows you to bid for event patterns according to your individual likes and dislikes.

The bids that you submit using the N-PBS Bidder are submitted to the N-PBS Scheduler. Your bids and the events along with other parameters in the N-PBS Scheduler added by your administrator are used to automatically award event patterns for the bid period.

The N-PBS Scheduler considers each crewmember's seniority and bid when awarding event patterns and ensures that the awarded events meet as many crewmember preferences as possible, while also meeting legal requirements and the airline's targets for Event utilization. Event patterns are awarded strictly according to the seniority, with the most senior bidder's event pattern awarded first, and the most junior bidder's event pattern awarded last.

Along with your awarded event patterns, the N-PBS Bidder provides a Reasons Report that identifies whether or not each bid preference was fulfilled, and also provides detailed explanations for awards and denials.

Important - When you click on Submit you are submitting your Current, Default and Event (if you have the Event module) bid to the N-PBS Scheduler. When you submit your bid you may see a message that not all bids have been submitted. The submit message will tell you what has been submitted and what hasn't. For example, if you submit a Default bid while Current bidding is closed you will see a message that your Default bid has been submitted, but your Current has not. You will always receive a confirmation number for any bid that has been submitted.

Must Go Bidders and Junior Assign

The N-PBS Scheduler looks at your Event Requirements status and the Junior Assign status of an event when awarding events. This section shows you how to determine your event requirement and if an event is flagged as junior assign. See Training Module Processing Logic for more information on how you are awarded event patterns.

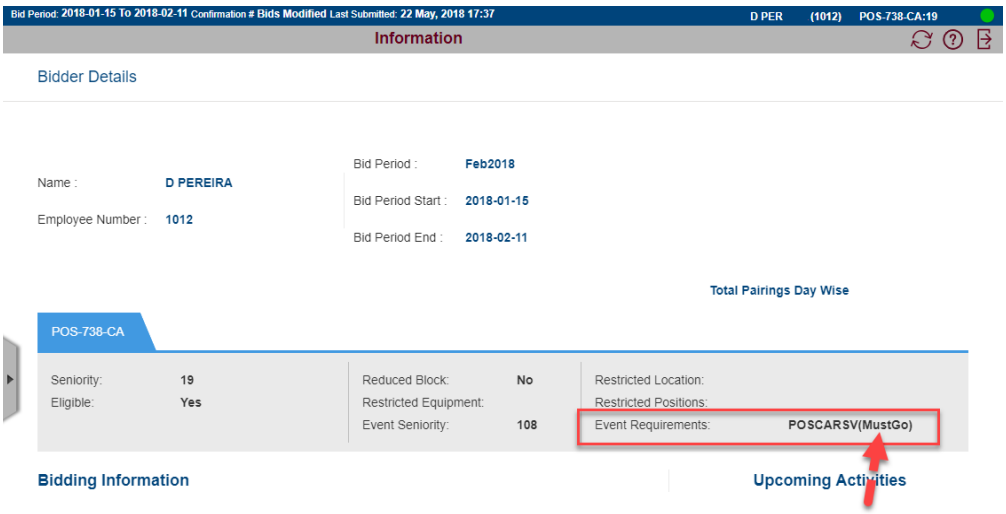
Must Go Requirement

The Info screen displays your status for event requirement in the Bidder Details section. See Info screen for more information on the Info screen.

The Info screen is the default screen when you first log in, or you can navigate to it at any time by clicking on the Info button

.

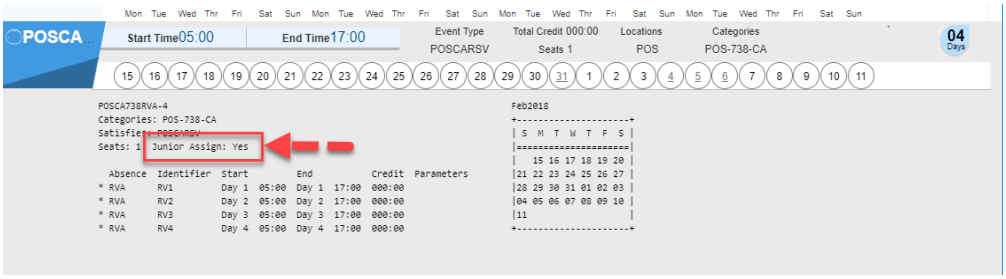
In the sample screenshot the bidder is flagged as Must Go.



Junior Assign

You can determine if an event is flagged as Junior Assign by looking at the event details. See View Pattern Details for more information.

In the sample screenshot the event is flagged as Junior Assign.



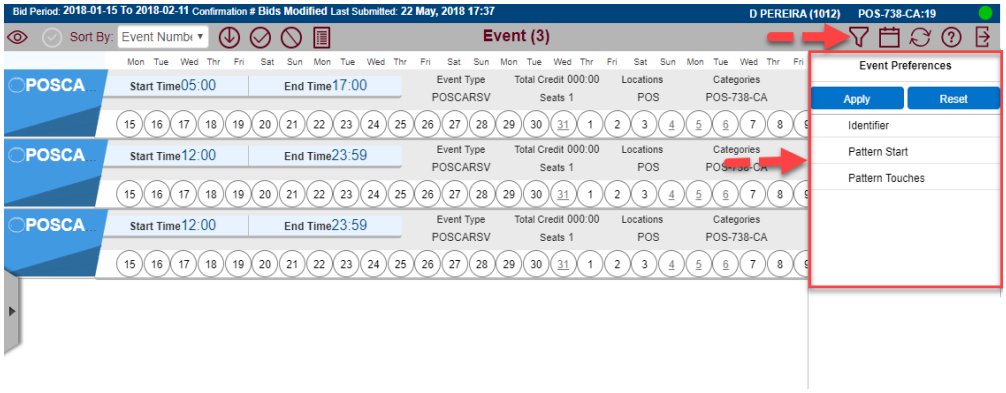
Search for Event Patterns

To search for event patterns:

1.

Click on the Event button to go to the Event screen.

2. Click on the Show filters button to open the Event Preferences editor.



3. Use the Event Preferences editor to enter your search criteria. The Event Preferences editor has the same functionality as the Pairing Preferences editor.

4. Click the **Apply** button.

The matching event patterns are displayed on the Results tab.

If a search returns too many event patterns, you can continue to refine the search by adding or changing search criteria and clicking on the Apply button again to begin a new search.

You can also bid for or avoid event patterns from this screen. The process to bid for and avoid patterns is the same as bidding for or avoiding pairings. See Add Bids from Search for more information.

View Event Pattern Details

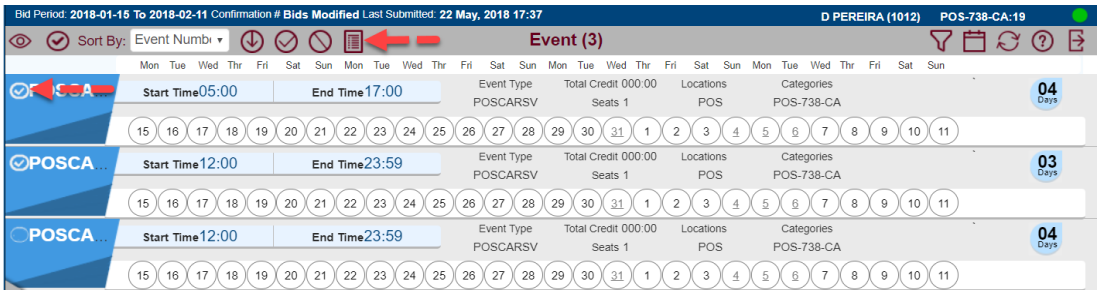
The N-PBS displays the results of a search on the Results tab. You can see summary information about each training pattern, but you can also view the complete details for one or more training patterns.

A training pattern with Yes beside Junior Assign means that the N-PBS Scheduler will award this training pattern to junior May Go and Early crewmembers even if they bid for no training patterns in the month. See Junior Assign and Avoid Voluntary Training

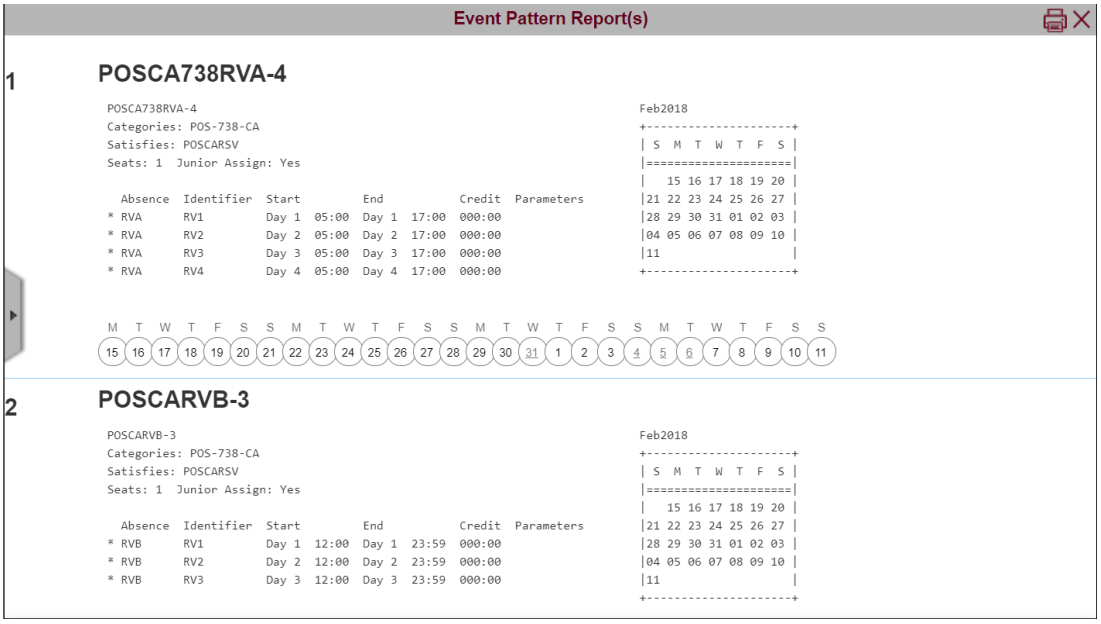
There are two ways to view training reports. You can click on a Training Pattern Number to view the report in the Training screen. The instructions below show you how to view reports on a new screen.

To view training pattern details

1. Click one or more check mark beside the pattern number.



2. Click the Show Event Report button.



3. The Event Report or Reports are displayed in a new screen. Click the red X to return to the Training screen.

Event Bid Structure

When you first navigate to the event bid screen you will see an empty bid with three system-generated bid lines. Adding Event Bid Preferences is the same as adding bid preferences into Pairing and Reserve bid groups.

```
Start Event

    Avoid Voluntary Event

    Award Event
```

Start Event

Start Event is always at the start of the bid and cannot be moved or edited. This bid line instructs the N-PBS Scheduler to begin building an event block.

Avoid Voluntary Event

Avoid Voluntary Event cannot be edited but it can be moved anywhere in your bid between Start Event and Award Event. This bid tells the N-PBS Scheduler that you do not want to be awarded event if you are not required to. However, you can be forced voluntary Event based on settings placed by your administrator and your Seniority.

You cannot avoid Voluntary Event if your Event Requirement is Must Go.

Award Event

Award Event is always at the end of your bid and cannot be edited or moved. This bid means Award Any Item if a event pattern must be awarded and earlier bids do not express any preference.

Add an Event Bid

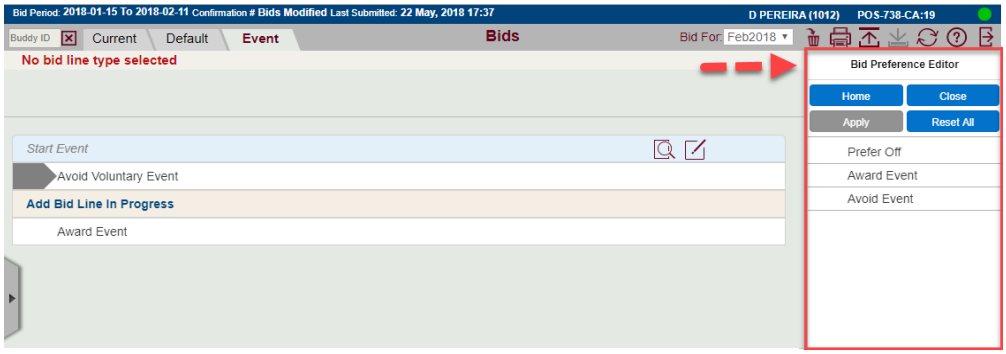
You can also analyze your event bid. The analyze functionality for event bids is the same as pairing bids. See the Bid Analyzer section for details.

To add a event bid:

1. Click on the Event tab.

2. Click on the plus button to open the Event Preferences editor. The Event Preferences editor has the same functionality as the Pairing Preferences editor.

3. Use the Event Preferences editor to add bid preferences and its options.



4. Click Apply to add the bid preference. The Apply button will only be enabled when you have enough options added to the bid preference.

Avoid Voluntary Event

Avoid Voluntary Event is ignored if your event requirement is Must Go. See Must Go Bidders and Junior Assign for more information.

Avoid Voluntary is ignored if events need to be filled and bidders with more seniority have avoided voluntary event. Your administrator sets a requirement for the minimum May Go that must be filled. The administrator also sets the Junior Assign status to each event pattern, if a pattern is set as Junior Assign the N-PBS Scheduler must award all of seats on the pattern.

The placement of the Avoid Voluntary Event bid is important. This bid tells the N-PBS Scheduler that you would prefer to get no event unless a event pattern is ranked as preferred based on your Award, Avoid or Prefer Off bids above it. If you are still awarded a event pattern this bid is ignored and your entire bid is used to award you a event pattern.

```
Start Event
```

```
1. Prefer Off Jun 20, 2018

2. Avoid Event If Equipment Type 2

3. Award Event If Start Time > 15:00

    Avoid Voluntary Event

4. Award Event If Event Starts June 15, 2018

Award Event
```

Avoid Voluntary Event after bid 3 tells the N-PBS Scheduler that you would prefer **no voluntary event event** if it cannot award you event that starts after 15:00 that gives you June 20th off while avoiding equipment type 2. If you cannot avoid voluntary event the N-PBS Scheduler will attempt to award event that starts June 15.

Event Module Processing Logic

How your bid is processed is determined by requirement status and event pattern details. It is possible that there are no bidders flagged as May Go. See Must Go Bidders and Junior Assign for more information on how to determine these qualities.

Administrator allocation requirements must be met and take top priority. This means bid preferences can be denied to meet these requirements, however, senior bid preferences are not denied to meet bid preferences of junior crewmembers.
The N-PBS Scheduler considers all administrator requirements and bid preferences in seniority order as follows:

1. Satisfy all Must Go requirements
2. Satisfy at least the minimum May Go requirements or, failing that, satisfy as many May Go requirements as possible

3. Allocate all seats on all training patterns with the Junior Assign flag or, failing that, allocate as many Junior Assign seats as possible in total
4. Honor Bid Preferences of the number 1 seniority person as well as possible
5. Honor Bid Preferences of the number 2 seniority person as well as possible
6. Honor Bid Preferences of the number 3 seniority person as well as possible and so on through the training seniority list

How the N-PBS Scheduler Awards Training Patterns

When awarding training patterns the N-PBS Scheduler has several run levels. In each level the N-PBS Scheduler attempts to satisfy the priorities in the order given above. When the N-PBS Scheduler reaches the bid honoring steps it attempts to rearrange awarded training patterns match bid preferences of each bidder in seniority order. As the run levels progress the N-PBS Scheduler uses a wider set of rearrangement techniques.

Run Level Processing Steps:

1. The N-PBS Scheduler makes awards, or rearranges awards to satisfy all Must Go requirements

2. The N-PBS Scheduler makes awards, or rearranges awards to satisfy at least the minimum May Go requirements

3. The N-PBS Scheduler makes awards, or rearranges awards to satisfy-as well as possible-the training patterns flagged as Junior Assign

4. The N-PBS Scheduler, in order of seniority, reads crewmember's bids and attempts to make awards or rearrange awards to honor as many bid preferences as possible - these rearrangement techniques become more complex as the run progresses

! While the N-PBS Scheduler is using rearrangement techniques to honor bid preferences it must maintain the objectives satisfied in

Steps 1 to 3.

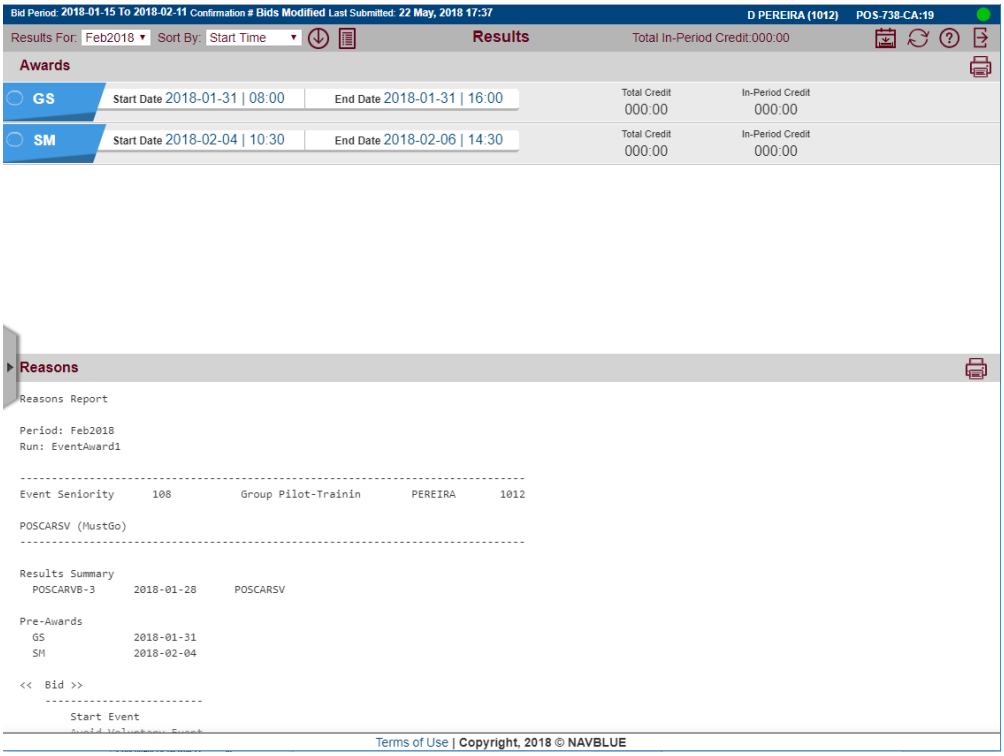
View Your Event Pattern Awards

The Results screen displays the Reasons Report explaining how the N-PBS Scheduler handled each of your bid preferences.

The Results tab shows you the scheduling results for the current training bid period, but it does not display your final block.

The Awards pane, at the top of the screen, displays your absences that you may have before the run was completed. Each absence is displayed on a separate line, arranged chronologically by date and time.

Each bid preference is numbered, and appears on the Reasons report followed by any training patterns that were awarded as a result of the bid preference, and an explanation of how the bid preference affected your award.



Event Reasons Report Definitions

This section explains all of the potential reasons that might appear on your Event Reasons report.

Awarded by previous bids: X X number of event patterns matched this bid preference, and were already awarded by a previous bid

Awarded to senior bidder: event patterns matching this bid preference were already awarded to a bidder with higher seniority than you

Complete Solution Not Found: no rearrangements exist to complete the award (including all juniors) while maintaining all overall administrator constraints.

Not honored: this bid preference was denied

Pre-awarded to junior bidder: this event pattern was pre-awarded to a junior bidder

No event patterns available: no event patterns that met your Avoid Patterns and Prefer Off bid preferences were available to be awarded, usually because too many event patterns were eliminated from the event patterns pool by your Avoid Patterns and Prefer Off bid preferences

Partially honored: this Prefer Off bid preference was used, but there are also event patterns that contradict a portion of this preference. If you submit a range of dates that you want to be free of duty, the N-PBS Scheduler may be able to honor part of the range but not all of it, resulting in a partially honored bid preference.

Required for Junior Must Go bidders: – the event pattern is held by a junior Must Go bidder, no rearrangements can be made to award the bid preference and satisfy the junior's Must Go requirement

[Rule violation]: a legal consideration, prevented this bid preference from being honored The rule is identified in the reason included on your report.

Would violate bid X: this bid violates a previous bid

Bid Preferences

Positive and Negative Bid Preferences

It is important to understand the difference between positive and negative bid preferences when constructing your bids.

Negative Bids

Prefer Off

Avoid Pairings

Negative bids remove pairings from the available pairing pool, while positive bids take pairings from the available pool and add them to your block. With negative bids only one instance of the bid preference within the pairing must match the bid preferences.

Positive Bids

Award Pairings

Remember that the junior buddy's bid is used to build the block for both buddies, but the senior buddy should also enter a bid, as a precaution. With positive bids the N-PBS Scheduler looks for pairing attributes that match the bid preference, only one attribute of a pairing must match a bid preference for it to remain in the available pairing pool.

Consider the following example:

```
1. Start Pairings
2. Prefer Off Monday, Tuesday
3. Avoid Pairings IF Departing On Between 01:00 and 06:00
4. Award Pairings IF Layovers in MIA, BOS
     Award Pairings
```

In this example the N-PBS Scheduler reads the Prefer Off and Avoid Pairings preferences and immediately removes all pairings that work on Mondays and Tuesdays and all pairings reporting between 1:00 am and 6:00 am. The Scheduler then begins to look for pairings in the available pairing pool that contain at least one layover in Miami and/or Boston. You will not be awarded a pairing with layovers in Miami or Boston if it works on a Monday or Tuesday or departs between 1:00 am and 6:00 am.

All pairings that operate on a Monday or Tuesday are removed from the available pairing pool by Bid 2. All pairings that depart between 1:00 am and 6:00 am are removed from the available pairing pool by Bid 3.

If the N-PBS Scheduler enters denial mode Set Condition, Prefer Off and Avoid Pairing bid preferences are removed from your bid and your bid is reprocessed. For details, see Denial Mode in the Processing Logic section.

Prefer Off Bid Preferences

PREFER OFF bid preferences request dates or days off during the bid period. You can select days of the week, specific dates or ranges of dates, and times of day that you want to be free of duty. Prefer Off bid preferences are negative bids that exclude pairings from consideration.

Award Pairings Bid Preferences

Award Pairings bid preferences identify the things you want to do, your work preferences, for the current bid period. Award Pairings bid preferences include options that identify particular characteristics of pairings that you like, such as types of layovers, duty duration, pairing credit etc. Award Pairings bid preferences include pairings for consideration, these bids add pairings to your block.

Items in Bids within a Comma Separated List

The N-PBS Scheduler considers items (dates, pairings, etc) within a comma separated list on Award bids to have equal preference. For example, in the following bid, `Awards Pairings if Departing On May 10, 2015, May 14, 2015 If Pairing Number W1717`, each date has equal preference. The N-PBS Scheduler does not consider Pairing W1717 on May 10 to be more important to you than pairing W1717 on May 14. If May 10 has more importance to you than May 14 it should be in a separate bid, entered in priority order.

Any / Every Options

This bid has an **Any** or **Every** option.

If you use **Any** - only one leg of the pairing has to contain the property for it to be awarded **or avoided***.

If you use **Every** - every leg of the pairing has to contain the property for it to be awarded **or avoided***.

Avoid Every only removes pairings where every leg has the property to be avoided. For example, `Avoid Pairings if Every Leg is Redeye` does not remove pairings where not all legs are redeyes. It only removes pairings where every leg is a redeye.

See Using Any or Every for more information.

Limit (Award Pairings Only)

You can tell the N-PBS Scheduler to limit the number of pairings it awards you that match a specific bid preference. For example, if you like to have one or two four-day pairings in your block, but not three or four, you can tell the N-PBS Scheduler to award you no more than two four-day pairings by adding Limit 2 to your bid preference.

Award Pairings bid example

```
Award Pairings If Pairing Length = 4 Days Limit 2
```

- awards one or two pairings that are 4 days in length

Limit only applies to the bid preference that you add it to.

- add a limit, or cap, to the number of pairings awarded based on a single Award Pairings bid preference

Award Pairings bid example

```
Award Pairings If Charter Limit 2
```

- the N-PBS Scheduler awards you a maximum of two pairings that contain charter flights, even if more pairings match the bid preference

Avoid Pairings Bid Preferences

Avoid Pairings bid preferences identify the things you don't want to do, the unwanted pairings or pairing criteria, for the current bid period. Avoid Pairings bid preferences include most of the same options as Award Pairings bid preferences, so you can identify types of layovers, stations, duty length, etc., that you don't like. Avoid Pairings bid preferences exclude pairings from consideration. Avoid Pairings bid preferences affect any Award Pairings bid preferences that follow them in your bid. For example, if you add the bid preference **AVOID PAIRINGS IF AVERAGE DAILY CREDIT< 006:00**, all pairings with an average daily credit that is less than six hours are removed from consideration once the N-PBS Scheduler reaches that bid preference, even if they meet the rest of the criteria for an Award Pairings bid preference that appears after the Avoid Pairings bid preference.

Any / Every Options

This bid has an **Any** or **Every** option.

If you use **Any** - only one leg of the pairing has to contain the property for it to be awarded **or avoided***.

If you use **Every** - every leg of the pairing has to contain the property for it to be awarded **or avoided***.

***In most configurations Any and Every options are not available for Avoid Pairings Bid Preferences. If you do not see these options on your avoid bids you do not have them.**

Avoid Every only removes pairings where every leg has the property to be avoided. For example, `Avoid Pairings if Every Leg is Redeye` does not remove pairings where not all legs are redeyes. It only removes pairings where every leg is a redeye.

See Using Any or Every for more information.

Using Any or Every

***In most configurations Any and Every options are not available for Avoid Pairings Bid Preferences. If you do not see these options on your avoid bids you do not have them.**

Avoid Every only removes pairings where every leg has the property that you want to avoid. For example, `Avoid Pairings if Every Leg is Redeye` does not remove pairings where not all legs are redeyes. It only removes pairings where every leg is a redeye.

Bid Preferences and Pairing Properties

There are two types of bid preferences to consider with **Any** and **Every**. Bid preferences that award/avoid pairings with properties that are always present and properties that may not be present in a pairing.

Properties that are always present: Aircraft Type, Duty Legs, Duty On, Duty Duration and Employee Number. Pairings will always have at least one aircraft type, duty leg, duty on (and it's sub properties) and duty duration.

Properties that are not always present: Layover, Line Check Airmen, Split Duty, Charters, Sit Length, Redeyes, Enroute Check-In and Check-Out. There can be pairings that do not have any of these properties.

If a pairing does not have these properties it **will not** match:

If Every

If Not Every

If Any

If a pairing does not have these properties it **will** match:

If Not Any

Using Layovers as an example:

```
If Every Layover < 24:00
```

A pairing only matches if it has at least 1 layover AND every layover is < 24:00.

```
If Not Every Layover < 24:00
```

A pairing only matches this property if it has at least 1 layover AND not every layover is < 24:00. For example, the pairing must have at least 1 layover which is not < 24:00. A pairing with zero layovers is not considered.

```
If Any Layover < 24:00
```

A pairing only matches this property if it has at least 1 layover < 24:00.

```
If Not Any Layover < 24:00
```

A pairing matches this property whenever it does not have at least 1 layover < 24:00.

This includes pairings with zero layovers. It also includes pairings with at least 1 layover with no layovers < 24:00.

Deadhead Legs

The new Any/Every options will not make any changes to whether deadhead legs count as matching.

In past releases, Flight Number would match if any leg (either deadhead or non-deadhead) matched. Therefore for this property, If Any will be matched if any leg (deadhead or non-deadhead) matches. If Every will only be matched if every leg (deadhead and non-deadhead) matches.

The properties Redeyes, Charter, Aircraft Type and Employee Number would previously have been matched only if a non-deadhead leg matched. Therefore for these properties, If Any will only be matched if at least 1 non-deadhead leg matches. If Every will be matched if every non-deadhead leg matches.

The property Landings In will include deadhead legs only if the bidder uses the option **Counting Deadhead Legs**.

Waive Bid Preferences

Waive bid preferences are not available in all configurations. If you don't see Waive bid preferences they are not available.

Waive bid preferences tell the N-PBS Scheduler that you want certain rules adjusted or disregarded while your block is built. Some rules can be completely disregarded, while other rules can only be adjusted. The rules that you can waive are all visible in the interface. If a rule isn't visible, you can't waive it.

Instruction Bid Preferences

Instruction bid preferences provide special instructions that tell the N-PBS Scheduler how to manage specific bid preferences, or what to do if it can't construct a legal block using your initial bid. Instruction bid preferences tell the N-PBS Scheduler what restrictions to remove when processing your bid, in order to complete your block.

Instruction bid preferences are often used to provide the N-PBS Scheduler with more options for creating a legal block before entering Denial mode.

Denial mode occurs if the N-PBS Scheduler could not award you a block that reaches the minimum credit window while honoring all of your bid preferences.

Redo From Line is always used with Forget Line, but Forget Line can be used alone. These instructions usually add pairings back into your pairing pool that the N-PBS Scheduler can consider adding to your block.

Clear Schedule and Start Next Bid Group

Bid Groups are independent of each other. Bid Preferences are only relevant for the bid group they are contained in. Any Pairings awarded from previous bids are removed if a Clear Schedule and Start Next Bid Group is triggered.

Clear Schedule and Start Next can only be placed inside a Pairings bid group. You cannot attach this bid to another bid. By adding a Clear Schedule and Start Next bid, you tell the N-PBS Scheduler to clear your schedule of any awarded pairings and begin processing the next bid group. A Clear Schedule and Start Next bid is forced to the bottom of your bid group and any bid preferences added to that bid group are forced above the Clear Schedule and Start Next bid preference.

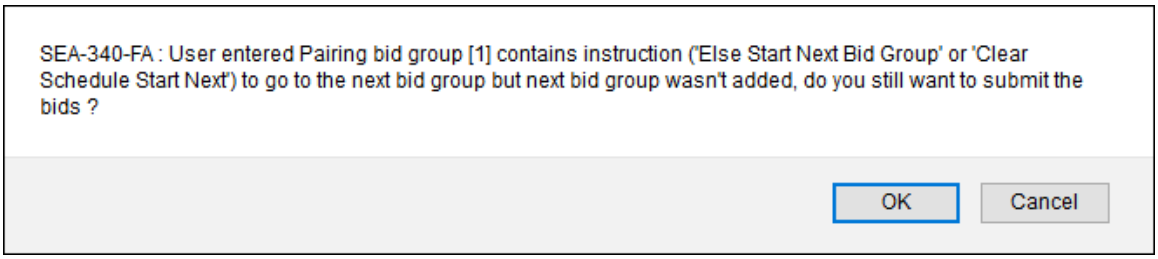
Guidelines

If you use Clear Schedule and Start Next Bid Group, keep the following points in mind:

the N-PBS Scheduler only uses the specific bid preferences you provide in the last bid group; optimization such as substitution and shuffling is performed to try and complete your schedule prior to executing the Clear Schedule and Start Next Bid Group command

if you use this command in your last bid group the N-PBS Scheduler uses the system-generated bid groups to complete your block; this means that the N-PBS Scheduler will attempt to build you a pairings block using the Award Pairings system-generated bid preference, if a complete block still cannot be built the N-PBS Scheduler attempts to build you a Reserve block using the system-generated bid preference Start Reserve

If you submit a bid with A CSSN bid in a bid group without a bid group after it, you will see the following message:



Set Condition Bid Preferences

Using Set Condition bid preferences tells the N-PBS Scheduler something about your block, by setting a global condition of some type, such as maximum or minimum credit, patterns of days on or off.

There are two ways that Set Condition bids are placed in the bid group, they are either placed automatically at the top of the bid group or they can be placed above or below Avoid and Prefer Off bid preferences but are forced above Award bid preferences.

Bids Forced to Top of the Bid Group

Vacation GDO, Reserve GDO and Slide Vacation bids are automatically forced to the top of a bid group - these bids are not available in all configurations. These bids are denied only after all of your Avoid Pairings and Prefer Off bid preferences have been denied. Make sure you consider the order in which bid preferences are denied, particularly if some of your Avoid Pairings and Prefer Off bid preferences are more important to you than the Set Condition bid preferences.

Bids Forced Above Award Bid Preferences

Any Set Condition not mentioned above can be placed anywhere in a bid group above an Award Pairings bid preference. These bids cannot be forgotten, this includes the Minimum Base Layover as well. ***Minimum Base Layover is not available in all configurations***

Processing Logic

How the N-PBS Scheduler Uses Your Pairing Bids

Starting at the top of your Pairings bid group, the N-PBS Scheduler reads each of your bid preferences and remembers all restrictions you specify. The N-PBS Scheduler must honor all Set Condition, Prefer Off, and Avoid Pairings bid preference 100% unless you later instruct the N-PBS Scheduler to Forget a bid preference, or the N-PBS Scheduler enters Denial Mode.

When the N-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 has a rules check performed against it, to ensure that the resulting block is legal. If the N-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 preference. The N-PBS Scheduler continues to read your bid until it completes your block or reaches the last bid preference.

Once your block is complete, the N-PBS Scheduler stops processing your bid, even if it has not reached the last bid preference.
Processing Logic is different in Reserve bid groups.

If your block is still not complete when the N-PBS Scheduler reaches your last bid preference, 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 and Avoid Pairings bid preferences.

If the block is still not complete, the N-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 N-PBS Scheduler may remove one pairing that matches bid preference 6 and replace it with two pairings that match bid preference 7 and complete the block.

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

Also note that shuffling tries 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 N-PBS Scheduler enters Denial Mode.

Denial Mode handles deniable bid preferences differently from each other.

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 YWG, 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 delete additional days or dates.

If your administrator sets a target credit value, the N-PBS Scheduler tries to get every block above the target. However, as long as your block is above the minimum credit window, the N-PBS Scheduler does not go into Denial Mode to force your block above the target credit value.

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

How The N-PBS Scheduler Selects a Reserve Block

Unlike in a pairings bid group; when awarding a reserve block the N-PBS Scheduler does not perform any optimization, such as substitution, swapping or shuffling, nor does the N-PBS Scheduler enter denial mode. However, Coverage Awards may occur to ensure proper coverage. The N-PBS Scheduler tries to give people a reserve block that attempts to honor as many reserve bid preferences as possible.

when the N-PBS Scheduler starts processing a Reserve bid group it reads the first line Start Reserve and checks to see if a legal reserve line can be built, and then if possible, a legal reserve block is built

the N-PBS Scheduler reads the first bid preference and then attempts to build a reserve schedule honoring this bid preference

the N-PBS Scheduler then reads all subsequent bid preferences, in order from top to bottom, and attempts to build a reserve block honoring as many of these preferences as possible keeping any preferences already honored

for example, if the first bid preference is honored but the first and second together cannot be honored, the second preference is denied and the N-PBS Scheduler reads the third preference and attempts to honor preference 1 and 3; this process is continued until all bid preferences have been attempted

this type of processing awards the best possible Reserve block using the bid preferences provided by the bidder

Credit Window Processing

The N-PBS Scheduler utilizes three separate, biddable Credit Windows for awarding full-time Crewmember blocks. The bid preferences of the Crewmember determine which Credit Window is used initially for bid processing. Each Credit Window is comprised of three Credit Values which are utilized by the N-PBS scheduler in processing the bids. These windows and values are as follows:

If a Crewmember bids Set Condition Maximum Credit, the global parameters for the bid are set to the Maximum Credit Window.

the Maximum Credit Window

Maximum Value

Threshold Value

Minimum Value

If a Crewmember does not have a preference for credit, the global parameters for the bid default to the Normal Credit Window.

the Normal Credit Window

Maximum Value

Threshold Value

Minimum Value

If a Crewmember bids Set Condition Minimum Credit, the global parameters for the bid are set to the Minimum Credit Window.

the Minimum Credit Window

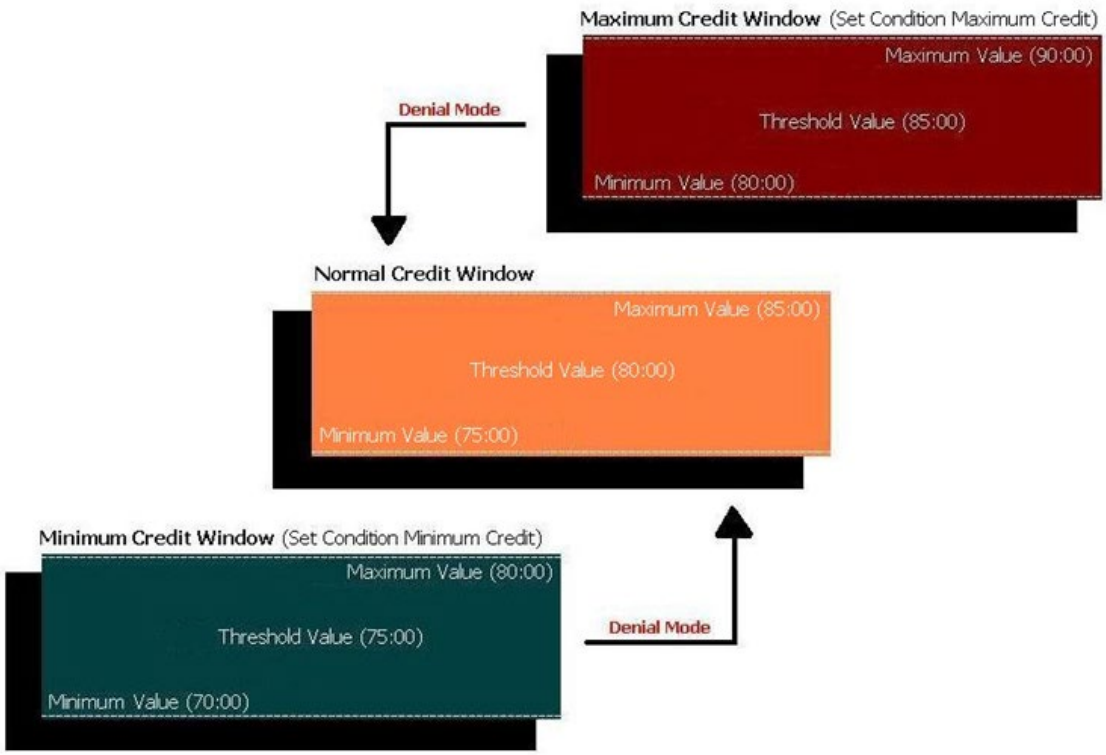
Maximum Value

Threshold Value

Minimum Value

For any given completion attempt, the N-PBS Scheduler awards pairings normally until your total credit is above the Threshold Value for the applicable Credit Window. At this point the N-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 N-PBS Scheduler will not utilize Shuffle or Denial Mode to force your block above the Threshold Value. However, if your block is not above the Minimum Value, the N-PBS Scheduler will utilize Shuffle and, if necessary, Denial Mode in order to complete your block.

This description of the processing logic for Credit Windows is based on the most commonly used settings which are controlled by Administrators. There are many possible scenarios for the administration of the Credit Windows – check the monthly published bid information for details or contact administration.



If you bid for a minimum credit block (Set Condition Minimum Credit) or a maximum credit block (Set Condition Maximum Credit), the N-PBS Scheduler WILL go into Denial Mode if necessary to honor the bid , even though the block may be within the Normal Credit Window.

If Denial Mode deletes the Set Condition Minimum/Maximum Credit bid, the next completion attempt reverts to the Normal Credit Window and all previously denied Avoid Pairings and Prefer Off bid preferences remain denied.

Substitution

Substitution replaces a pairing(s) awarded from a higher bid preference with a pairing(s) that match the same higher bid preference in order to fit pairings from a lower bid on the block. Many pairings may match a specific bid preference, so substitution is used to try different combinations of matching pairings.

For example, if the N-PBS Scheduler is trying to fit a pairing on the block that matches bid preference 3 , but the pairing conflicts with a pairing that matches bid preference 1, the N-PBS Scheduler may try to substitute the pairing matching bid preference 1 with another pairing that also matches bid preference 1 but starts on a different day and doesn't conflict with the pairing that matches bid preference 3. Substitution allows the N-PBS Scheduler to successfully fit pairings that match both bid preferences on the block.

Vertical Swapping

Swapping finds pairings already awarded to more senior block holders that would fit on the block being built, and tries to replace the pairings of the more senior block holder with equally desirable pairings from either open time or other blocks.

pairings can only be removed from another block if an equally desirable substitution (that matches the bid that originally awarded the pairing) can be made

The pairings need to match the exact same bid preferences (including honoring any Prefer Off or Avoid Pairings bid preferences), but they don't need to be the same as or equivalent to each other in aspects that the preference did not stipulate.

if a pairing is swapped from a block that is over the Threshold Credit Value, the swap must keep the credit value above the Threshold Value

if a pairing is swapped from a block that is between the Minimum and Threshold Values, the swap must keep the credit value above the Minimum Credit Value

Swapping Example

Bidder A wants 3-day pairings with late pairing check-in times and early pairing check-out times.

Bidder A is awarded a 3-day pairing with a late check-in time and early check-out time, with a layover in LAS.

Bidder B wants 3-day pairings with layovers in LAS.

The N-PBS Scheduler can't find a pairing in open time to match this bid, but finds the pairing on Bidder A's block. The N-PBS Scheduler also finds a 3-day pairing in open time with a late check-in time and early check-out time.

The N-PBS Scheduler moves the pairing on Bidder A's block to Bidder B's block and the pairing from open time to Bidder A's block.

Bidder A is awarded a pairing that matches the bid preference for 3-day pairings with late pairing check-in times and early pairing check-out times. Bidder B is awarded a pairing that matches the bid preference for 3-day pairings with layovers in LAS.

Shuffling

Shuffling is triggered when your block can't otherwise be completed using your specific bid preferences. This is a last step before Denial Mode.

Shuffling looks for different combinations of pairings that satisfy Award Pairings preferences located below the last negative bid preference (Prefer Off or Avoid Pairings preference). The goal is to complete the block without having to deny any (or additional) bid preferences. The result is that crew members are awarded pairings that match their Award Pairings preferences, but not pairings that necessarily match their highest Award Pairings preferences. The result is a complete block with the understanding that ultimately their higher priority bid preferences were honored and as a result.

Pairings awarded by Followed By bid preferences are not shuffled.

Armed with this knowledge, you may want to consider the order in which your Award Pairings and Avoid Pairings bid preferences appear in your bid, because shuffling only looks at the pairings awarded by the Award Pairings preferences that come after the last deniable bid preference.

For example:

```
1. Prefer Off X
2. Award Pairings If A
3. Avoid Pairings If B
4. Award Pairings if C
5. Award Pairings if D
     Award Pairings
```

If your line is not complete after processing the system-generated Award Pairings lines, the N-PBS Scheduler would try to exchange pairings awarded by bid preference 4 with pairings that could be awarded by bid preference 5 in order to avoid having to deny bid preference 3.

But if the bid was:

```
1. Prefer Off X
```

```
2. Avoid Pairings If A
3. Award Pairings If B
4. Award Pairings if C
5. Award Pairings if D
     Award Pairings
```

The N-PBS Scheduler would try to exchange any pairings on the blockline, if necessary to avoid denying bid preference 2, because all of the Award Pairings bid preferences come after the last Avoid Pairings bid preference, which is line 2.

And if the bid was:

```
1. Prefer Off X
2. Award Pairings If A
3. Award Pairings If B
4. Award Pairings if C
5. Avoid Pairings if D
     Award Pairings
```

The N-PBS Scheduler would still try to shuffle, but only within the Award Pairings (it is the only positive bid preference) bid preference in order to avoid denying bid preference 5. If your line was still not complete after denying bid preference 5, the N-PBS Scheduler would attempt to exchange any pairings on the line from bid preference 2, 3, and 4, in order to avoid denying bid preference 1.

Once a bid preference is denied, the N-PBS Scheduler can shuffle Award Pairings bid preference above the denied preference, but not above the remaining negative bid preference(s).

If the bid was:

```
1. Prefer Off X
2. Award Pairings If A
3. Avoid Pairings If B
4. Award Pairings If C
```

```
5. Award Pairings If D
6. ~~Avoid Pairings If E~~
7. Award Pairings If F
      Award Pairings
```

Bid preference 6 has been denied in the previous completion attempt; in the subsequent completion attempt the N-PBS Scheduler could shuffle, if necessary, using lines 4,5,and 7.

Pairings awarded by Followed By bid preferences are not shuffled.

Denial Mode

If shuffling does not produce a complete block, the N-PBS Scheduler enters Denial Mode.

When denial mode is needed, the N-PBS reads the 1st bid preference in the bid group and tries to build a line that honors this preference, along with any Award Preferences entered. It then reads the 2nd bid preference (in the bid group) and tries to build a line that honors this preference in addition to any preferences Set Condition, Prefer Off and Avoid Pairings already honored - i.e. if the first preference was honored, the system will now try to honor the first and second preferences together, but if the first preference was denied, the system will now try to honor the second preference on its own with any Award Preferences entered.

The N-PBS Scheduler goes through your entire bid this way. By continuing to add bids from the top down in this way, the N-PBS Scheduler will find the best possible line given the bids in this bid group.

Denial Mode handles certain deniable bid preferences differently:

- Set Condition and Avoid Pairings bid preferences are not used at all, even if you have more than one option on the bid preference, such as Landings in SEA, SFO.
- 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 delete additional days or dates.

The N-PBS Scheduler tries to award pairings to reach the Threshold Value for a given Credit Window. However, as long as your block is above the Minimum Value, the N-PBS Scheduler does not go into Denial Mode to force your block above the Threshold Value.

The N-PBS Scheduler will abandon the current bid group and move to the next bid group if a bid preference with an Else Start Next Bid Group or Clear Schedule and Start Next Bid Group cannot be honored.

Bid Groups are independent of each other. Bid Preferences are only relevant for the bid group they are contained in. The N-PBS Scheduler clears anything (Pairings or Reserve Days) and begins processing the next bid group.

Administrators set the Minimum, Threshold and Maximum Values for Minimum, Normal and Maximum Credit Windows.

If you request a Minimum credit block (Set Condition Minimum Credit) or a Maximum credit block (Set Condition Maximum Credit), the N-PBS Scheduler WILL go into Denial Mode if the block is not above the Minimum Value, even though the block may be within the Normal Credit Window.

If Denial Mode deletes the Set Condition Minimum/Maximum Credit

bid, the next completion attempt reverts to the Normal Credit Window.

Secondary Line Generation (SLG)

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

This section also describes language coverage awards which is not in all configurations.

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

- pairing stacks happen when too many pairings are unassigned
- language stacks happen when too many pairings requiring the same language are unassigned

Coverage Awards ensure work coverage, and takes precedence over any bid preferences. The N-PBS Scheduler makes multiple passes through the schedule, to

ensure that all rules are met and all pairing stacks fall within the limits set by Crew Planning. Coverage awards occur on each pass, but the N-PBS Scheduler adjusts its settings for each pass as it brings the stacks within acceptable limits.

Critical Period - a critical period is a specific time period determined by how pairings and rules interact. For example, a critical period may occur from 23:30 Dec 24th to 01:30 Dec 26th

Pairing Stack - pairing stacks represent a set of mutually exclusive pairings (only one of these pairings can be held by a Crew member at a time); coverage awards is triggered when pairings must be forced on Crew members to avoid too many pairings remaining in open time during a critical period (based on the maximum stack height setting)

Language Credit Stack - language credit stacks represent all of the pairings that require a given language; language credit stacks happen when more language-required credit remains in open time than can be covered by the remaining language-qualified people language credit stacks are based on the overall language-required credit for the bid period, and are not associated with a specific critical period

Language Pairing Stack - language pairing stacks represent a set of mutually exclusive pairings with a shared language requirement; language stacks happen when more pairings requiring the same language remain in open time during a critical period that can be covered by reserve (based on the maximum stack height setting)

A pairing stack is "triggered" for coverage awards during a pass when the N-PBS Scheduler calculates that it must attempt to force the stack on every remaining Crew member to avoid having the final number of unassigned pairings operating in a critical period exceed the maximum value set by Crew Planning (usually the maximum number of pairings that can be covered by reserve). Once a stack is triggered, the N-PBS Scheduler needs to eliminate it through coverage awards.

To eliminate or reduce stacks, the N-PBS Scheduler needs to award the pairings in the stacks by assigning them to junior Crew members, despite those specific preferences that conflict with the pairings that need to be awarded. The N-PBS Scheduler determines where it needs to start awarding pairings from the stack, and any Crew members that fall below this point receive a Coverage Award pairing (subject to legalities and pre-awards). Coverage Award pairings are assigned to a block first, before the N-PBS Scheduler starts to build the rest of a Crew member's block using their bid. This pairing is marked as an unmovable event, like a pre-award, training or vacation.

The N-PBS Scheduler tries to find a pairing in the stack that either meets the Crew member's preferences or conflicts with the least number of Avoid Pairings and Prefer Off bid preferences (in order of priority) and also satisfies the Crew member's award preferences. Basically, if the N-PBS Scheduler can't meet all the bid preferences, it tries to award each Crew member the pairing that matches as many bid preferences as possible.

Because pairings vary in length, and interact with non-overlapping pairings due to legality rules, solving a stack for one particular critical period may result in the emergence of a stack during another critical period. Because of these interactions, on rare occasions it may appear as if the system has violated seniority by, for example, a junior Crew member holding a day off specifically requested by a more senior Crew member. When, in fact, there was no way to combine the flight duties such that the work was covered and rules regarding rest and max duty were respected.

If a pairing awarded as Coverage violates a Prefer Off or Avoid Pairings bid that has an Else Start Next attached to it, the N-PBS Scheduler attempts the Else Start Next before awarding pairings from the stack, unless the pairing was awarded for language credit coverage.

If multiple pairing stacks have been triggered, the N-PBS Scheduler assigns a pairing from each triggered stack, starting with the stack closest to the beginning of the bid period and continuing to the end of the bid period, unless a priority stack date has been triggered.

A priority stack date is a critical period that takes precedence over all other pairings that need to be awarded first. The priority stack date helps to ensure that seniority for a specific date isn't violated by Coverage Awards.

Language Coverage Awards

The N-PBS Scheduler tracks the number of language-qualified crew members for each language, and language credit. Coverage Awards occur if the amount of credit remaining is greater or equal to the amount of credit that the remaining available people who speak that language can legally take.

Language Coverage Awards force pairings that cover a critical period for particular languages on junior crew members to ensure that an excessive number of open-time positions requiring that language does not occur in the critical period.

If overall demand for pairings requiring a given language is insufficient, language Coverage Awards also force as much language-required credit as possible on junior crew members, while still honoring their bids (as much as possible) within the pool of language-required pairings.

It is possible to have both Language Coverage Awards and Operational Coverage Awards within the same bid.

Coverage Awards Example

December 25th is a typical example of a critical period in which a pairing stack occurs. Many crew members request the day off which causes too many pairings on December 25 to remain in open time.

To ensure coverage for this critical period, the N-PBS Scheduler uses the parameters set by administrators, and determines how many bid preferences for December 25 can be met. Anyone lower in the seniority list is assigned a pairing from the stack first, and then the rest of their block is built using their bid preferences.

Language Legality During the FA Run

This section describes language allocation during FA and Purser runs and is not applicable in all configurations.

During the FA run, no languages are actually assigned until the end of the run. However, no position is awarded unless it is "language-legal": a person can only be awarded this pairing if it is still possible to meet all language requirements using the current holders of the pairing and any future holders of the pairing.

The N-PBS Scheduler assumes that future holders of the pairing can speak all languages, but they are still only allowed to hold one route language.

At the very end of the FA run, a "maximal assignment" of languages is given to the people who hold each pairing (i.e. an assignment that meets as many BL requirements as possible and as many route-language requirements as possible). Languages are assigned to the most senior people first. So the most senior person always gets a BL assignment if they're qualified, and they always get a route-language assigned if they are qualified for any of the route-languages.

Example

Pairing V5001 has one IC position and five FA positions, and requires 3 BL and 2 GE speakers.

The IC assigned is unilingual.

The first FA assigned is BL.

The second FA assigned is BL.

The third FA assigned is BL.

In this situation, the fourth and fifth FAs assigned would have to have GE, and the N-PBS Scheduler would not assign an FA to this pairing who did not have GE.

If not enough FAs wanted this pairing, and the language stack for GE was too high during this period, the N-PBS Scheduler would force the pairing on two GE-qualified junior FAs.

Completion Attempts

Completion attempts represent a single pass through crew member's bid group. If a crew member is awarded a block without the N-PBS Scheduler having to enter Denial Mode, it has performed one completion attempt. However, once the N-PBS Scheduler enters Denial Mode, a new completion attempt is started each time a bid preference is denied.

Every subsequent completion attempt clears all pairings from the Crew member's block which were awarded in the previous attempt and starts processing the bid again. Completion attempts are never seen by Administrators or Crew members, but are important in understanding how the N-PBS Scheduler manages Denial Mode.

Absences

Absences can have two effects on how blocks are built. If the absences have credit, they may mean that fewer pairings are needed to construct the block. Absences that don't have credit can make a complete block more difficult to construct because a complete block must be created using a smaller pool of pairings and days available.

For example, a Crew member with a single week of vacation will need fewer pairings to construct a complete block. However, a Crew member with 21 days of vacation may be more likely to be unblockable if there are no pairings left in the pool during the remaining days of the bid period in which he/she is available.

If No Block or Reserve Block Can Be Built

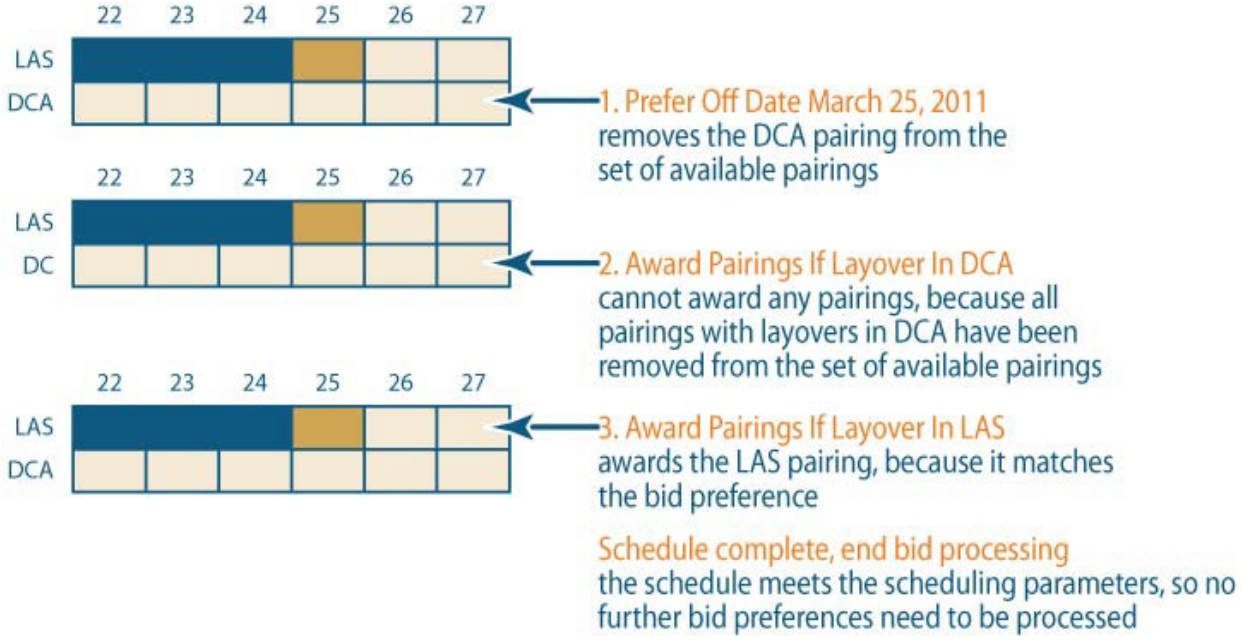
If the N-PBS Scheduler cannot award a block or reserve block to a Crew member, they still show up in the final crew roster but only their pre-awards appear on their schedule. No pairings or reserve appear in their block, and the N-PBS Scheduler does not flag these Crew members in any special way.

Sample Logic

Example 1

This example shows you a straightforward award.

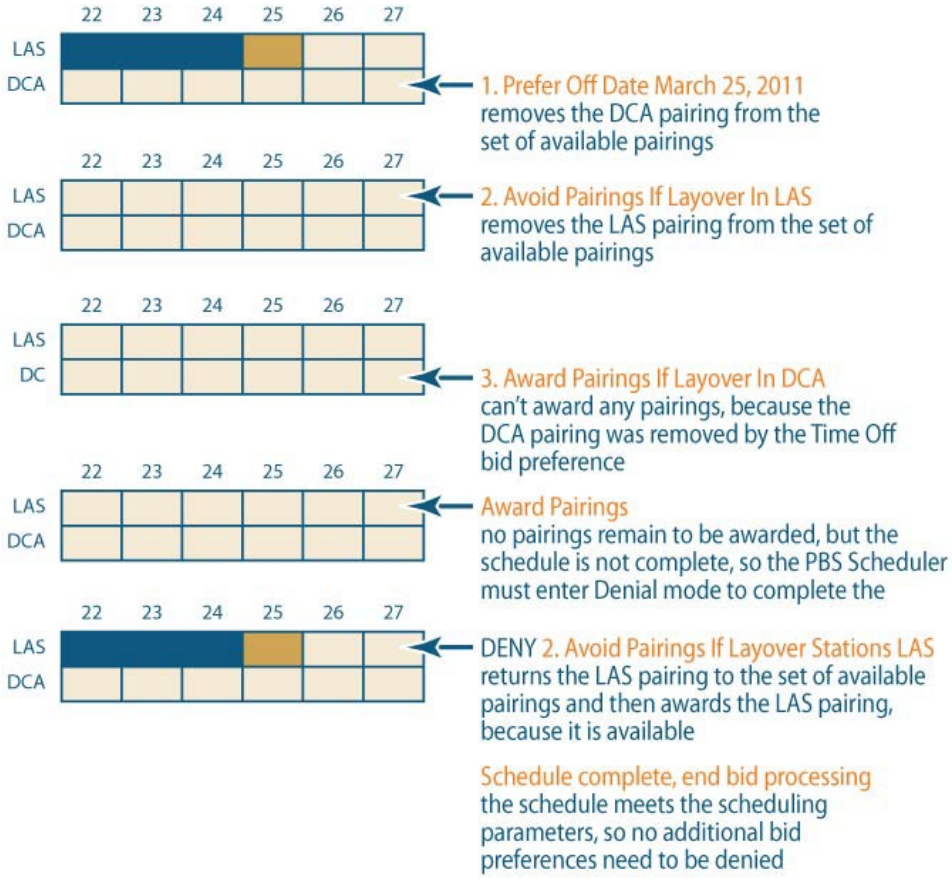
```
1. Start Pairings
2. Prefer Off Date March 25, 2011
3. Award Pairings If Layover In DCA
4. Award Pairings If Layover In LAS
     Award Pairings
```



Example 2

In this example, you can see how the N-PBS Scheduler returns pairings to the set of available pairings.

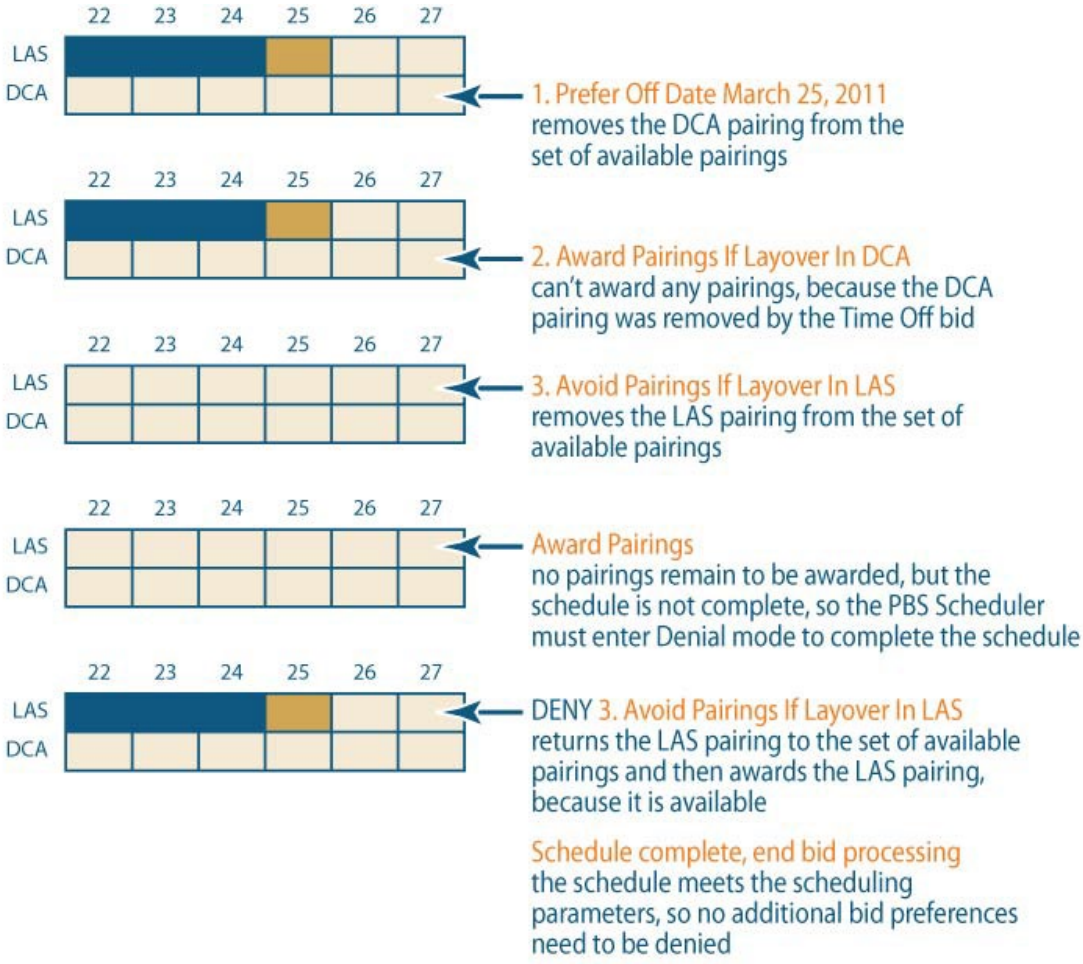
```
1. Start Pairings
2. Prefer Off Date March 25, 2011
3. Avoid Pairings If Layover In LAS
4. Award Pairings If Layover In DCA
     Award Pairing
```



Example 3

This example reverses the second and third bid preferences from Example 2, but results in the same pairing being assigned.

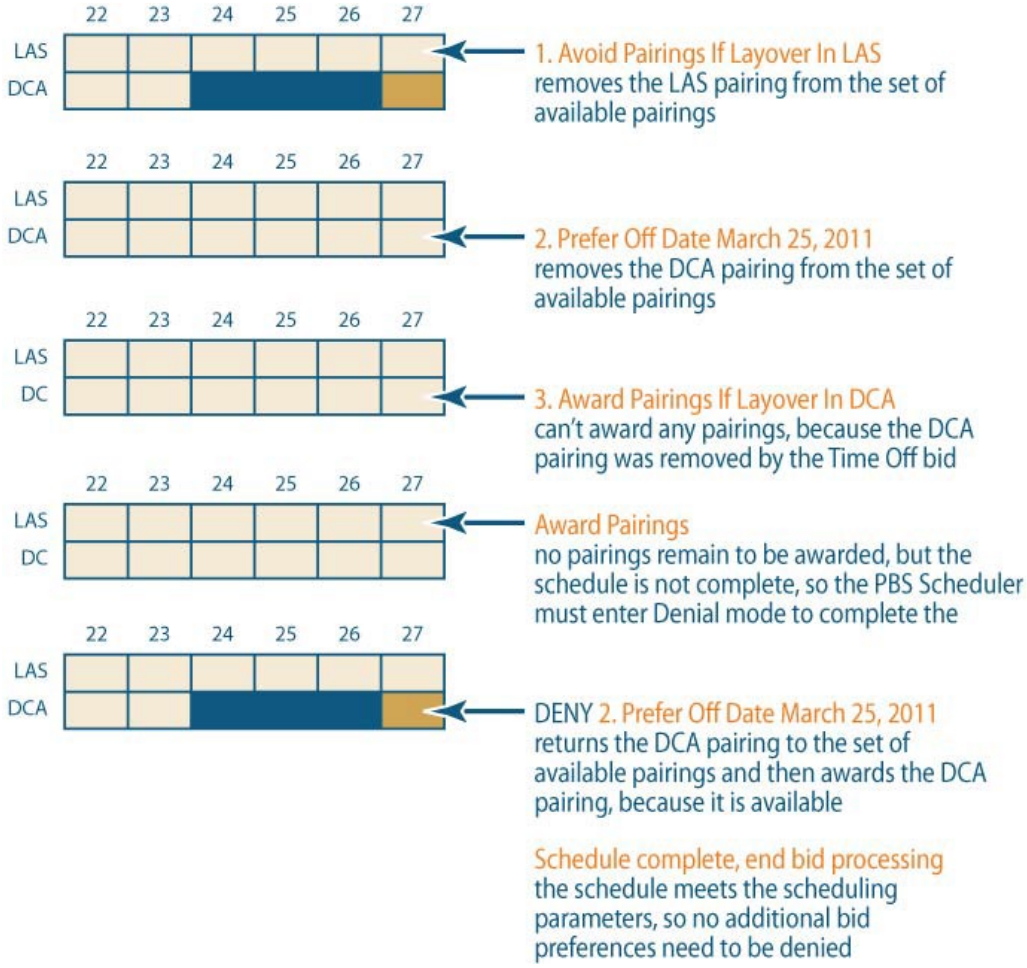
```
1. Start Pairings
2. Prefer Off Date March 25, 2011
3. Award Pairings If Layover In DCA
4. Avoid Pairings If Layover In LAS
     Award Pairings
```



Example 4

This example makes avoiding layovers in LAS the highest priority.

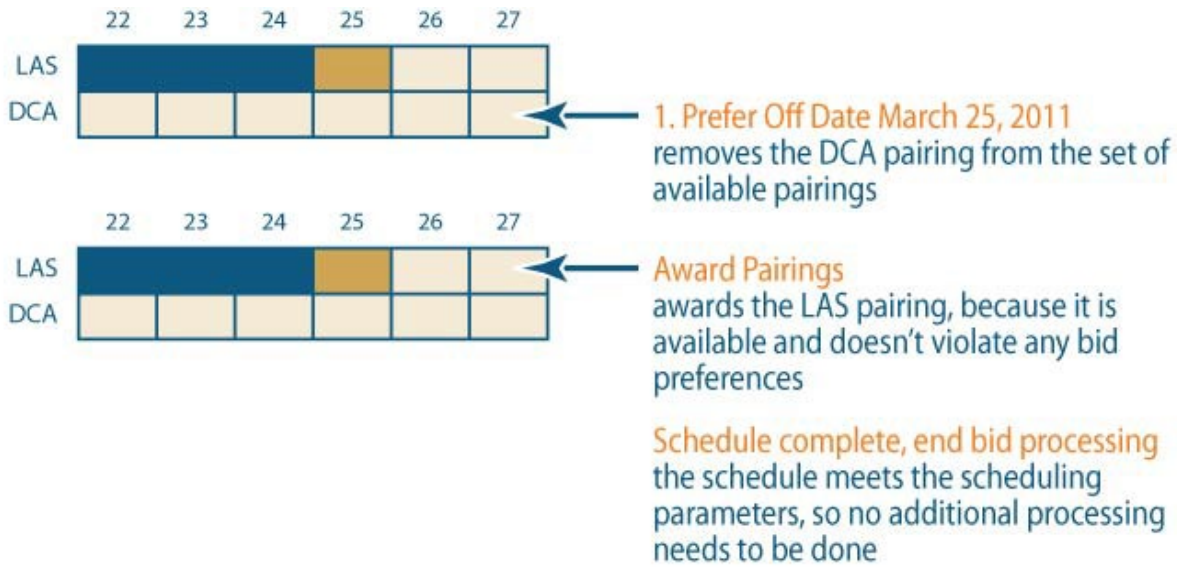
```
1. Start Pairings
2. Avoid Pairings If Layover In LAS
3. Prefer Off Date March 25, 2011
4. Award Pairings If Layover In DCA
     Award Pairings
```



Example 5

This example includes only one Prefer Off bid preference.

```
1. Start Pairings
2. Prefer Off Date March 25, 2011
     Award Pairings
```



Sample Bids

Scenario 1

Jack is a commuter from SLC based in Long Beach. Jack can't typically get to LGB when he commutes until 10am and has to leave by the 6pm flight out to avoid another night in a crash pad. Jack really doesn't care when he works or where he goes although he typically likes one pairing to LAS 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!

Concurrent Reserve

```
1. Start Pairings
2. Prefer Off Dec 14, 2011 - Dec 17, 2011
3. Award Pairings If Layover In LAS If Pairing Check-In
Time After > 09:59 If Pairing Check-Out Time Before <
18:01 Limit 1
4. Avoid Pairings If Pairing Check-In Time Before < 10:00
5. Avoid Pairings If Pairing Check-Out Time After > 18:00
6. Award Pairings If Layover In SLC
     Start Pairings
         Award Pairings
     Start Reserve
```

Consecutive Reserve

```
1. Start Pairings
2. Prefer Off Dec 14, 2011 - Dec 17, 2011
3. Award Pairings If Layover In LAS If Pairing Check-In
Time After > 09:59 If Pairing Check-Out Time Before <
18:01 Limit 1
```

4. Avoid Pairings If Pairing Check-In Time Before < 10:00
5. Avoid Pairings If Pairing Check-Out Time After > 18:00
6. Award Pairings If Layover In SLC

```
Award Pairings
Start Pairings
   Award Pairings
Start Reserve Bid
Start Reserve
```

Standard Reserve

1. Start Pairings
2. Prefer Off Dec 14, 2011 - Dec 17, 2011
3. Award Pairings If Layover In LAS If Pairing Check-In Time After > 09:59 If Pairing Check-Out Time Before < 18:01 Limit 1
4. Avoid Pairings If Pairing Check-In Time Before < 10:00
5. Avoid Pairings If Pairing Check-Out Time After > 18:00
6. Award Pairings If Layover In SLC

```
Award Pairings
Start Pairings
   Award Pairings
   Award Reserve Line
```

Scenario 2

Jen likes to have the N-PBS system work for her. She lives in base and doesn't really care when she shows and checks out. Jen likes layovers in Mexico, preferably ones with at least 18 hours of layover time. She would rather do CUN, but doesn't mind AUA or SXM if she can't get CUN. She can always hold the Mexico pairings that depart on Mondays, her preference. There was, however, one pairing that caught her eye. Pairing J2148 really looked appealing and she wants to get this before anything else, but only one since it looks like a tough one. If she has to fill her block up to complete it, she would prefer one or two-day pairings.

Concurrent Reserve

```
1. Start Pairings
2. Award Pairings If Pairing J2148 Limit 1
3. Award Pairings If Departing on Monday If Layover In
CUN And If Layover Of Duration > 018:00
4. Award Pairings If Departing on Monday If Layover In
AUA, SXM And If Layover Of Duration > 018:00
5. Award Pairings If Pairing Length Between 1 days And 2
days
     Start Pairings
         Award Pairings
     Start Reserve
```

Consecutive Reserve

```
1. Start Pairings
2. Award Pairings If Pairing J2148 Limit 1
3. Award Pairings If Departing on Monday If Layover In
CUN And If Layover Of Duration > 018:00
```

```
4. Award Pairings If Departing on Monday If Layover In
AUA, SXM And If Layover Of Duration > 018:00
5. Award Pairings If Pairing Length Between 1 days And 2
days
     Award Pairings
     Start Pairings
        Award Pairings
     Start Reserve Bid
     Start Reserve
```

Standard Reserve

```
1. Start Pairings
2. Award Pairings If Pairing J2148 Limit 1
3. Award Pairings If Departing on Monday If Layover In
CUN And If Layover Of Duration > 018:00
4. Award Pairings If Departing on Monday If Layover In
AUA, SXM And If Layover Of Duration > 018:00
5. Award Pairings If Pairing Length Between 1 days And 2
days
     Award Pairings
     Start Pairings
        Award Pairings
     Award Reserve Line
```

Scenario 3

Christmas is always a huge family celebration at Sue's place and she has to have the 24th and the 25th off. She doesn't care if she has to be on reserve, she just needs the time off and she knows with her seniority she can get these days off on reserve. Of course, if she can have it off and fly then she just wants to work productive pairings (more than six hours per day of average daily credit). She really prefers turns (i.e. one

day pairings) especially those that check out before 6pm so she can see the kids before they go to bed.

Concurrent Reserve

```
1. Start Pairings
2. Prefer Off Date Dec 24, 2011 - Dec 25, 2011 Else Start
Next Bid Group
3. Avoid Pairings If Average Daily Credit < 006:00
4. Award Pairings If Pairing Check-Out Time Before <
18:00 If Pairing Length = 1 days
5. Award Pairings If Pairing Length = 1 days
6. Award Pairings
7. Start Reserve
8. Prefer Off Date Dec 24, 2011 - Dec 25, 2011
     Start Pairings
         Award Pairings
     Start Reserve
```

Consecutive Reserve

```
1. Start Pairings
2. Prefer Off Date Dec 24, 2011 - Dec 25, 2011 Else Start
Next Bid Group
3. Avoid Pairings If Average Daily Credit < 006:00
4. Award Pairings If Pairing Check-Out Time Before <
18:00 If Pairing Length = 1 days
5. Award Pairings If Pairing Length = 1 days
6. Start Reserve Bid
     Award Pairings
     Start Pairings
        Award Pairings
     Start Reserve Bid
```

```
7. Start Reserve
8. Prefer Off Date Dec 24, 2011 - Dec 25, 2011
     Start Reserve
```

Consecutive Reserve

```
1. Start Pairings
2. Prefer Off Date Dec 24, 2011 - Dec 25, 2011 Else Start
Next Bid Group
3. Avoid Pairings If Average Daily Credit < 006:00
4. Award Pairings If Pairing Check-Out Time Before <
18:00 If Pairing Length = 1 days
5. Award Pairings If Pairing Length = 1 days
     Award Pairings
6. Award Reserve Line
     Start Pairings
        Award Pairings
     Award Reserve Line
```

Scenario 4

Bill prefers not to fly with Bob (employee number 012345). For flying, Bill likes to layover in JFK since his son is there with the grandkids. He especially likes those layovers that are two-day pairings. The three-day SFO and three days pairings in general are OK too. He would prefer to not work with Bob, but he would rather have any of these pairings before working any others - even if he has to work with Bob.

Concurrent Reserve

```
1. Start Pairings
2. Avoid Pairings If Employee 012345
3. Award Pairings If Layover In JFK If Pairing Length = 2
days
```

```
4. Award Pairings If Layover In JFK
5. Award Pairings If Layover In SFO If Pairing Length = 3
days
6. Award Pairings If Pairing Length = 3 days
7. Forget 2
8. Redo From 3
     Start Pairings
         Award Pairings
     Start Reserve
```

Consecutive Reserve

```
1. Start Pairings
2. Avoid Pairings If Employee 012345
3. Award Pairings If Layover In JFK If Pairing Length = 2
days
4. Award Pairings If Layover In JFK
5. Award Pairings If Layover In SFO If Pairing Length = 3
days
6. Award Pairings If Pairing Length = 3 days
7. Forget 2
8. Redo From 3
     Award Pairings
     Start Pairings
        Award Pairings
     Start Reserve Bid
     Start Reserve
```

Standard Reserve

```
1. Start Pairings
2. Avoid Pairings If Employee 012345
```

3. Award Pairings If Layover In JFK If Pairing Length = 2 days
4. Award Pairings If Layover In JFK
5. Award Pairings If Layover In SFO If Pairing Length = 3 days
6. Award Pairings If Pairing Length = 3 days
7. Forget 2
8. Redo From 3

```
     Award Pairings
     Start Pairings
        Award Pairings
     Award Reserve Line
```

Glossary

<

<: before a time of day, or less than a specific value

=

=: at or equal to a specific value

>

>: after a time of day, or greater than a specific value

A

Absences: scheduled events preventing a bidder from being available for flying duties at a particular time; absences include vacation, maternity leave, training, etc

Absences with Credit: absences that require a virtual credit for block credit and pay purposes; the virtual credit counts towards the block credit. Ex: PTV, MIC

Absences without Credit: absences where you are not available for duty but receive no credit to the block credit. Ex: LOA, MIL

Avoid Pairing Bid Preference: a bid preference that describes unwanted pairings or pairing criteria and excludes pairings from consideration see also Award Pairing, Instruction, Set Condition, Time Off bid preferences

Award Pairing Bid Preference: a bid preference that describes preferred pairings or pairing criteria and includes pairings for consideration see also Award Pairing, Instruction, Set Condition,Prefer Off bid preferences

Award Pairings Bid Preference (system generated): a bid preference added automatically to the end of every bid; if a legal block cannot be created after the

system-generated Award Pairings bid preference has been processed, Award Line Reserve instructs the N-PBS Scheduler to try to award the bidder a reserve block

B

Base: the location a crew member is assigned to see also Co-terminal Base

Bid: a list of bid preferences that you submit, describing desired work patterns, types of duties, and days or times of day off

Bid Group: a list of bid preferences that are grouped and processed together; bid groups are independent of each other and always begin with Start Pairings or Start Reserve

Bid Month: see Bid Period

Bid Period: the calendar month or duration of days that the block is being built for i.e. January 31st to March 1st; bid periods may be called bid months The bid period may or may not coincide with a particular calendar month.

Bid Preference: a single, numbered line of a bid representing a single request see also Award Pairing, Instruction, Set Condition, Time Off bid preferences

Block: the pairings or reserve days and all other activities that you are assigned to work in the bid period; blocks may be called lines, lines of time, rosters, schedules or awards

Block Credit: the value of all the duties on your schedule for a given bid period; may be called total credit or credit value

Block Time: the time beginning when an aircraft first moves for the purpose of flight or repositioning and ending when the aircraft comes to a stop at the next destination or at the point of departure

Block Window: see Credit Window

C

Calendar Day: a 24-hour period, generally from midnight to midnight (a pairing with a 2345 block-in and 15-minute release does not infringe on the following day)

Category: the combination of a crew member's position and base

Charter: flights that take place outside normal schedules

Check In Time: the time that a pairing starts and the crew member must report for duty

Check Out Time: the time that a pairing ends and the crew member is no longer on duty

Co Terminal: a single base that operates out of multiple airports (i.e. JFK/LGA,)

Comma(,): used as a separator between multiple list items in a bid preference, such as dates, stations, pairing numbers, etc Commas in Award Pairings, Avoid Pairings and Prefer Off bid preferences are interpreted as "and/or". If your bid preference is Award Pairings If Landings In LAS,DCA, the N-PBS Bidder may award pairings that land in LAS, and pairings that land in DCA, and pairings that land in both LAS and DCA. Both destinations have the same importance, so the N-PBS Bidder may trade a LAS for a DCA during the awarding process.

Completion Attempt: a pass through a crew member's bid, awarding pairings according to their preferences to give them a complete block Each time the bid is changed, usually when a bid preference is removed by Denial Mode, a new completion attempt begins

Coverage Awards: the process of ensuring that flight duty periods are adequately covered by assigning pairings to crew members, potentially creating a situation

in which bids are denied Because pairings vary in length, and interact with non-overlapping pairings due to legality rules, solving a stack for one critical period may result in a stack being created during another critical period. As a result, it may appear that seniority has been violated by, for example, a junior crew member holding a day off specifically requested by a more senior crew member when, in fact, there was no way to combine the flight duties so that the work was covered and rules regarding rest and max duty were respected

Credit: a value associated with an activity, usually measured in hours and minutes

Credit Window: the range of credit values that the N-PBS Scheduler uses to build blocks that satisfy work coverage and FSM requirements. There are three Credit Windows: Minimum, Normal and Maximum

Critical Period: a specific time period determined by how pairings and rules interact For example, a critical period may occur from 23:30 December 24th to 01:30 December 26th

Current Bid: the bid you submit for the current bid period; the N-PBS Scheduler uses the information in this bid to build the crewmember's block for the bid period

D

Day: a calendar day beginning at 00:00 and ending at 23:59

Default Bid: a generic bid used to construct your block for the current month if you have not submitted a regular bid; default bids may be called standing bids or standby bids

Deniable Bid Preference: a bid preference which may be removed through Denial Mode. Set Condition, Prefer Off or Avoid Pairingsbid preference

Duty Period: the elapsed time from report to release; duty period may also be called duty duration

F

Federal Aviation Regulations (FAR): rules of duty time and rest that must be applied when creating schedules

I

Instruction Bid Preference: a bid preference that provides special instructions to manage the way the N-PBS Scheduler processes your bid; instruction bid preferences (Forget and Redo From) are most often used to remove restrictions if the N-PBS Scheduler could not award you a complete block honoring all of your bid preferences see also Award Pairing, Instruction, Set Condition, Time Off bid preferences

L

Landing: a point at which the plane you are flying on touches down at a station

Layover: a rest activity in a pairing, with time spent at a hotel at a station away from base

Leg: a flight that takes off from a station and lands at another station

Legal Crew Rest: a rest period (measured from release to report) that is sufficient to break a crew member's duty period

Line: see Block

M

Maximum Credit Window: the maximum range of credit hours that you may be awarded for a bid period during line construction – associated with Set Condition Maximum Credit

Maximum Value: the maximum number of credit hours set by Crew Planning for a given Credit Window. The N-PBS Scheduler will not build your block exceeding this credit value

Minimum Credit Window: the minimum range of credit hours that you must be awarded for a bid period during line construction – associated with Set Condition Minimum Credit

Minimum Value: the minimum number of credit hours set by Crew Planning for a given Credit Window. The N-PBS Scheduler will go into Denial Mode in order to achieve this credit value.

N

Negative Bid Preference: a bid preference that identifies what you seek to avoid in a pairing; can be removed by Denial Mode. Ex: Avoid Pairings, Prefer Off

Normal Credit Window: the normal range of credit hours that you may be awarded for a bid period during line construction – this is the default credit window in the absence of a Set Condition Minimum/Maximum Credit bid

O

Off Duty Time: the time that a pairing ends and the crew member is no longer on duty

On Duty Time: the time that a pairing starts and the crew member must report for duty

Open Time: pairings within the bid period that remain unassigned after a scheduling run

Option: a modifier added to a command to make a bid preference more precise see also Bid Preference

Overlap: pairings that start in one bid period and end in the following bid period that may affect maximum duty or flight times for specific dates/times; overlap may be called carry-in, carry-out, spillover, and transition

P

Pairing: a series of flights over one or more days that originates and terminates in a crew base, and contains legal rest and flight duties; pairings may be called trips or rotations

Pairing Check In Time: the time that a pairing starts and the crew member must report for duty

Pairing Check Out Time: the time that a pairing ends and the crew member is no longer on duty

Pairing Length: number of calendar days that a pairing operates on

Pairing Pool: all of the available pairings from which blocks can be constructed

Pairing Substitution: the process of replacing pairings awarded by a previous preference with equivalent pairings that also allow subsequent bid preferences to be met. For example, if your first bid preference is for layovers in SEA, and your second bid preference is for Pairing L2154, the N-PBS Scheduler might have initially added a pairing with a SEA layover to your schedule that conflicts with Pairing L2154. Using pairing substitution, the N-PBS Scheduler would look for a different pairing with a SEA layover that would also allow you to have Pairing L2154 in your block

N-PBS Bidder: a bid entry system developed by NAVBLUE that allows you to create and submit your bids, as well as view essential information that supports the bidding process

N-PBS Scheduler: a preferential bidding and scheduling system that takes your bids and seniority into consideration when building customized blocks

Position: the actual position that you operate on a pairing

Positive Bid Preference: a bid preference that identifies your desired pairings; positive preferences are the only preferences that actually place pairings in a block. Ex: Award Pairings

Pre assigned Absences: see Absences

Prefer Off Bid Preferences: a bid preference that identifies preferences for dates or days off; if the N-PBS Scheduler needs to enter Denial Mode to award you a complete block, Time Off date ranges are individually denied from the least important to the most important date (i.e. right to left)For example, if you entered the date range 15 to 11, the N-PBS Scheduler begins by denying the 11th, and then the 12th, and then the 13th, and so on until a legal block is constructed. See also Award, Avoid, Instruction bid preferences

Preferential Bidding: a system that builds individualized crew block based on bids that crew members submit identifying their likes and dislikes for flying, specific pairings, characteristics, and days off

Previous Bids: the bids that the N-PBS Scheduler used to construct your block for previous bid periods; you can see both your previous regular bids, if you submitted them, as well as your previous default bids

Previous Default Bid: the generic bid used to construct your block for the previous month if you did not submit a regular bid

Previous Regular Bid: the bid you submitted for a previous bid period

R

Reasons Report: explains the results of each bid preference in your bid, and also provides a reason explaining why it was or was not honored

Report (On Duty Time): the later of the actual or scheduled time that a crew member begins duty

Rules: the FAR and Scheduling Guidelines and letters of agreement used by the N-PBS Scheduler to evaluate the legality of each block

S

Schedule: the pairings and other activities that you are assigned to work in the bid period; schedules may be called lines, blocks, lines of time, or rosters

Secondary Line Generation (SLG): in Denial Mode, a final completion attempt that uses only the Award Pairings bid preference; SLG ignores all preferences and performs an exhaustive search to find the crew member a complete block

Set Condition Bid Preferences: a bid preference that requests a schedule containing specific criteria which will apply to the entire block. Ex: Set Condition Maximum Credit See also Award, Avoid, Instruction, Prefer Off bid preferences

Shadow Bidder: A bidder that has partial or entire bid period dates blocked for pairing assignments. The shadow bidder is assigned pairings according to their seniority but will not work the pairings. A shadow pairing can't be honored to more than one shadow bidder.

Shuffle: the process of searching for different combinations of pairings that match the same or lower bid preferences in an effort to complete blocks by removing pairings awarded by a bid preference that may be preventing the completion of the block see also Swap, Pairing Substitution

Sit Length: time spent waiting for next leg to start (not a legal crew rest period)

SLG: see Secondary Line Generation

Stack: the number of pairings operating on the same date or dates that remain unassigned due to crew members' bids; stacks may result from spikes in the flight schedule during a given period or an abnormally high number of requests for the same day off, such as Thanksgiving or Christmas Day

Standby Bid: see Default Bid

Standing Bid: see Default Bid

Swap: the process of finding combinations of pairings that can be moved (between various blocks and unassigned pairings) to meet individual bidders' preferences; since many pairings can fulfill a single bid preference, the N-PBS Scheduler uses swapping to identify pairings on blocks that can be exchanged with pairings on other blocks or unassigned pairings to fulfill the preferences of all bidders. See also Shuffle, Substitution

Swap Chain: a list of pairings to be exchanged, along with information about their current and new positions on blocks or in the open pairings pool; swap chains can be created for pairings being shifted among blocks, or being substituted on a single block

System-Generated Bid Groups: bid groups that are automatically added to your bid; you cannot add bid preferences to these bid groups and they cannot be edited. moved or deleted

System-Generated Bid Preferences: bid preferences automatically added to end of pairings bid groups; this preference cannot be moved, edited or deleted. See Award Pairings Bid Preference

T

Threshold Value: the target number of credit hours set by Crew Planning for a given Credit Window. The N-PBS Scheduler will attempt to build the block to Threshold in the first completion attempt, but will not enter Denial Mode to achieve this credit value

V

Vacation Credit: the amount of time awarded to your bid period that the N-PBS Scheduler must consider when constructing your schedule For example, seven days of vacation result in thirty five hours (35:00) of credit time awarded to a crew member's schedule

W

Window (Credit): the range of credit hours that each schedule's total credit value must be within to satisfy work coverage settings, collective agreements, and individual credit targets

Work Period: a group of "on duty" days that are not broken by any days off; i.e. a six-day work period could consist of six one-day pairings, or two three-day pairings, or any other legal combination

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