Creating Queue-Type Auctions

Bidding Module

Table of Contents

What is a Queue Auction?

A Queue Auction is used to bid for items such as vacation days, kelly days, extra working days. An auction consists of a list of bidders sorted in a specified manner often defined by hierarchy. Seniority factors such as hire date, promotion Date, or test scores are common sort criteria.

The Process of a Queue Auction

An auction occurs in three phases:

Bid Phase – Bidders select desired auction items

Win or Resolve Phase – Bidders are paired with the items won. This phase can be performed instantaneously, by round or completed when all rounds are finished.

Award Phase – The award phase places the items won on calendars and rosters. Like the win or resolve phase, awards can be performed instantaneously, by round or completed when all rounds are finished.

In a queue auction, the eligible bidders are ordered based on the desired hierarchy. The auction is configured to allow each bidder to select their items during their turn, beginning with the most senior bidder. The auction can include determining eligibility based on running work code Dynamic Issues and/or Static Issues. Timing of awarding bidders their selections can be instantaneous or at a later time as determined by the auction manager.

Auctions are created with single or multiple rounds.

In a **Queue-type Single Turn Auction**, each bidder selects all items during their turn and the award is instantaneous or granted later by the auction manager.

In a **Queue-type Multiple Turn Auction**, each bidder selects the number of auction items allowed per the configuration during their turn. Each bidder makes their selections in the predefined order until all bidders complete their first turn. When round one is complete, round 2 begins. The award process can be immediate, as each bidder selects "Save", at the completion of each round, or once all rounds are complete. The number of rounds and auction items selected in each round is determined by the configuration.

Exercise 1 – Create a Simple Queue Method Auction for Vacation Bidding

Objective – Create a vacation auction to allow up to 3 people off per day on A Shift, based on seniority. This is a work code based auction.

Step 1 – Setup Authorities

Configure three new permission settings

- **Auction: Basic** is assigned to bidders
- **Auction: Manager** and **Auction: By-pass Manager** is assigned to users that manage auctions
- **Auction: Setup** is assigned to users that create auctions

Step 2 – Create Formula-IDs

Formula IDs control the display of the vacation dates created in an auction. Below are some common examples:

{FromDa} translates to "1/1/2009"

{FromDa.mm/dd/yyyy} translates to "01/01/2009"

{FromDa.mmm dd yyyy} translates to "Jan 01 2009"

Step 3 – Create Bidders List

Create Rules, List Target, List, List Chain, and List Plan. This controls who is allowed to bid and the order in which selections are made.

Creating Rules

Rules for Bidding differ from the rules used for Fill by Rules or staffing. Rules for staffing are often dynamic and align with the requirements of the vacancy they are trying to fill. Bidding does not reference a vacancy and therefore uses static rules. When creating People Filter rules, utilize Filter Focus Selections to ensure the rule is static.

In addition, Build Moment, From and Through are different. Dynamic Arguments used for staffing typically reference the vacancy whereas the typical Dynamic Argument for bid rules is TARGET.

Example List Target
Note: The Work Code field in a list target does not apply to bidding.

General

Name *

BID Bidders Target

Work Code *

Absent without Permission ▼

Detail

13

Rules

Rules

- Qualified If...
    - ↕ ✚ BID Assigned to A Shift {10}
- Unavailable If...
- Sort...

Example List

General

Name *

BID Bidders List

12

Execution Context

Execution Context

Bidding ▼

🔍 Search

Select All

Roster

Work Code

Bidding

List Targets

	List Target *	Conditions	
↕	BID Bidders Target ▼		⊖

✚ Add

Rules

Rules

- Qualified If...
- Unavailable If...
- Sort...
- ↕ ¹²₃ BID Seniority {10}

Example List Chain

Example List Plan

Step 4 - Create the Auction

1. From the **Setup** menu on the left, select **Bidding** and then **Bidding**.

2. In the **Auctions** folder click the **Add** button in **Auctions** window to create a new auction.

3. Name the auction "**A Shift Vacation**".

4. **Effective Date** creates the first vacation date available for bidding. This can be defined with an ordinary date definition or with dynamic dates. *Note: Best practices is to use an actual date in the Effective Date field so the auction can be reused for next year's vacation bid.*

5. **From, Through** and the **Conditions** fields determine when the actual bidding for the vacation days can occur. *Leave these blank for this exercise.*

6. Add the previously created **BID Bidders Plan** to the **Bidders** field by clicking on the **paper icon**.

7. The **Candidates** window appears. Select the list plan from the **List Plan** drop-down. **Save**.

8. The **Bidders** field is now populated. *Note: The Win Order field is only used in a Preference Auction as it will be the list plan that determines winners of the preference auction.*

9. The **Description** and **Instructions** fields located below **Win Order** are text fields to provide information to the bidders during the bidding process. The fields have no impact on the outcome of the auction.

10. **Save**.

Step 5 – Advanced Settings

1. Set the **Bid Method** to **Queue**. This type of auction forces users to bid one at a time, typically by seniority, and as users select an item they can expect to be awarded that item.

2. Check **Show 'Sold Out' items**. This allows bidders to visually see which dates are already "sold out" and cannot be selected since the vacation limit for that day has been reached. These days show as "Sold Out".

3. Check the **Allow bidders to skip their personal turn** checkbox. Since a queue auction forces users to bid one at a time in a specific order, this setting allows the auction to move on even if

the next user is not ready to make their selections. This user would simply log into the auction and select **Skip Turn**.

4. **Auto award items on win** can be checked for a queue type auction however in this example **do not** check this box. *Selecting this box instantly awards once the Save button is clicked and places the vacation codes on the user's calendar.*

Step 6 – Creating the Vacation Dates

1. On the left side of the **Edit Auction** window, click the **Add** drop-down and select **Generate items…**

2. The **Generate Items** window appears. From the **Generate Item Award Type** drop-down, select **Work Code**. This causes the window selections to change.

3. In the **Properties** section, select **Vacation** from the **Work Code** drop-down and **A Shift** from the **Shift** drop-down.

4. *Ensure the **From** and **Through** Dynamic Dates are correct. This is the range of dates that the auction will encompass.*

5. At the **Target what days in cycle** drop-down, select **Shift days only**. *This selection ensures the days presented to the bidder are only working days per his assigned shift.*

6. At the **Group Shift Pattern** drop-down, select **Calendar Days**. *This selection allows bidders to select individual days rather then forced to select a group of days.* **Save**.

7. All vacation days are created on the left.

8. Notice that days are titled by Day 1, Day 2, etc. To change to the date format, utilize the previously created **Formula ID**, by clicking on the **Day 1** checkbox.

9. From the **Select** drop-down, select **Select same level**. All days are now checked.

10. Click on the **Edit** button. All days are now highlighted.

11. To assign the formula ID to all days, select it at the **Name Formula ID** drop-down. Select **Save**.

12. All days now have the correct date.

Step 7 – Review Settings for an Individual Day

1. Click on any date's **checkbox** and click on the **Edit** button. Review the date settings on the right side of the window.

- **Visible Conditions** – Determines whether this auction item (and any children it may contain) are visible. This auction is set to **Conditional** with the Dynamic Argument **SHIFTWORKING** defining the condition of when it is visible. This ensures bidders only see days based on their permanently assigned shift.
- **Biddable Conditions** – Determines whether this auction item can accept bids. This auction is set to **Is biddable**.
- **Static Maximum** – Sets the total number of people that can bid this auction item. This auction is set to allow three people to be awarded this day as a vacation day.
- **Dynamic Auction Quantity** – Allows the auction to dynamically set different amounts of awarded bids based on attributes such as rank or specialty.

Step 8 – Make the Auction Available for Use

1. Move to bidding Plans by selecting **Setup** on the **Navigator** at the top. Bidding setup items appear in the **Setup** window.
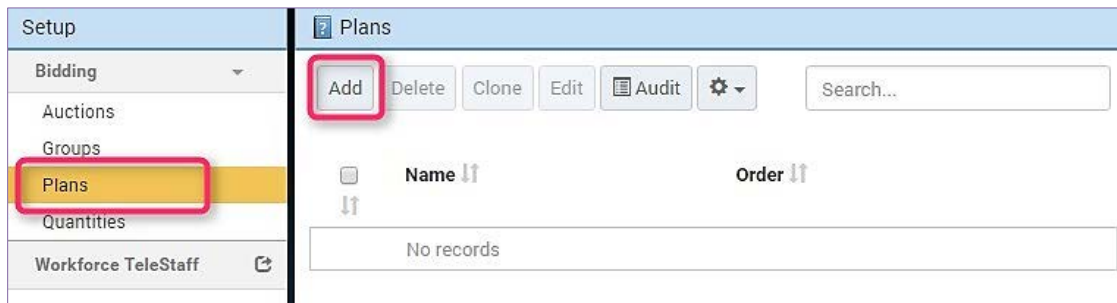
2. Select **Plans**. The **Plans** window appears on the right. Select the **Add** button to create a new auction plan.
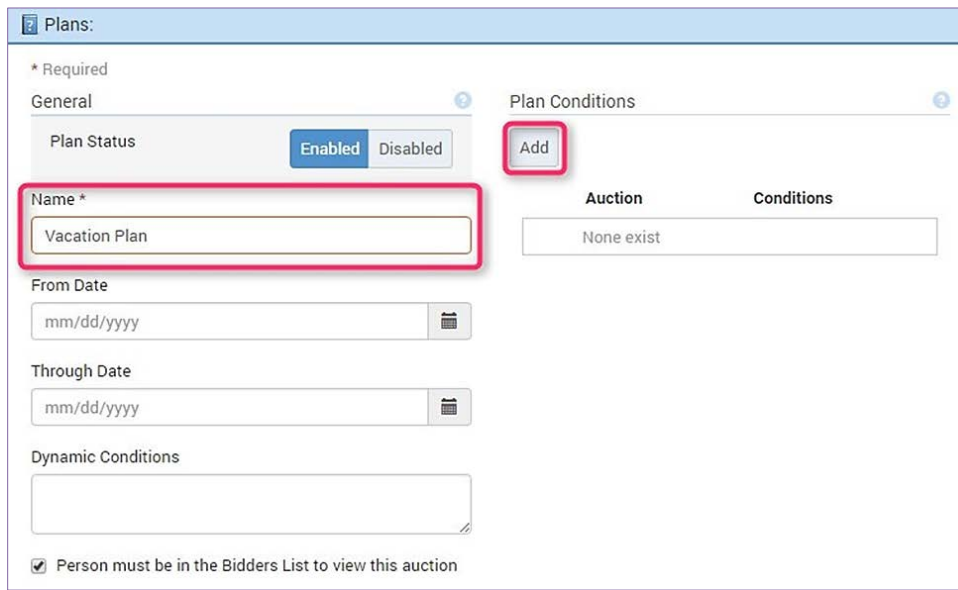
3. In the new **Plans** window, add the name of the vacation plan.
   - The **From Date**, **Through Date** and **Dynamic Conditions** fields define when the auctions associated with this plan are visible to end users. *Leave these fields blank.*
   - The **Person must be in the Bidders List to view this auction** dynamically sets the auctions in this plan to only be viewable to those users included in the auction's bidders list.

4. Click on the **Add** button to define the auctions that are part of this plan.

5. From the **Auction** drop-down, select the **A Shift Vacation** auction. **Save**.

Step 9 – View Results and Manage Auction

1. From the **Navigator** at the top, select **Bidding** to view the auction on the front end.

2. Select **Manage** to manage the auction. *Selecting the auction itself provides access to the auction as a bidder only.*

3. The list of auction bidders is blank until the bidders list is created. Create the list by clicking on the **gear** icon on the left side and from the drop-down select **Create List…**
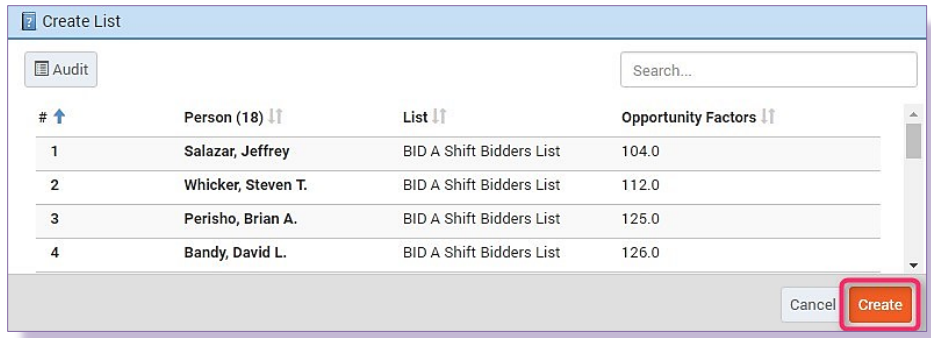
4. The **Create List** window appears. Confirm the list is correct and click the **Create** button at the bottom right.
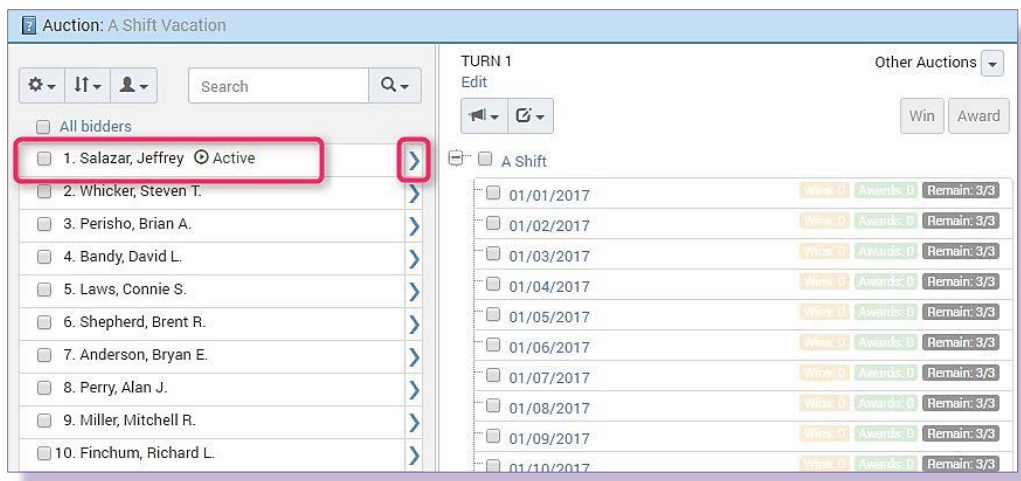
5. Once the bidders populate, note the window shows it is **Jeffrey Salazar's** turn denoted by the **Active** icon.

6. To bid for Jeffrey and/or view the auction as he would see it, click on the **blue arrow** to the right.
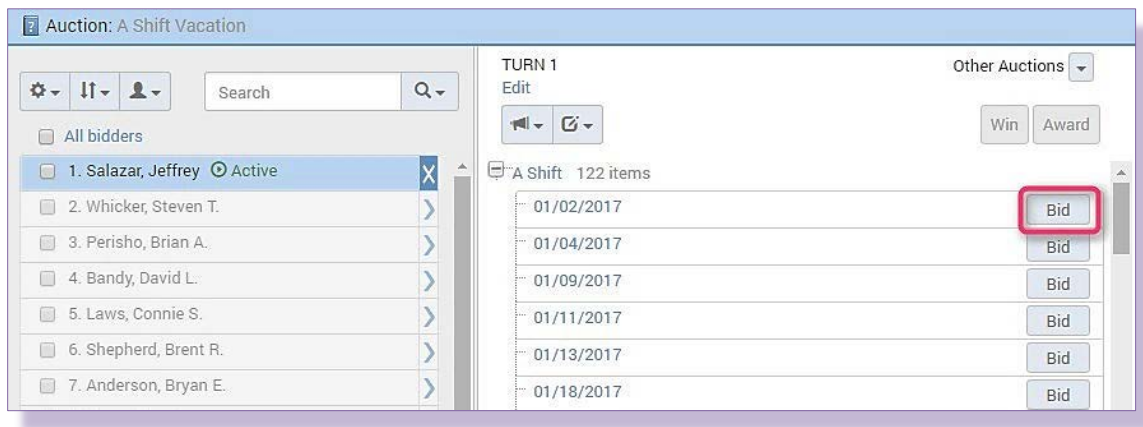
7. The auction now shows only dates associated with Jeffrey's permanently assigned shift and is ready for him to bid on days by selecting the **Bid** button. *Bidding can start immediately since there was not a **From**, **Through** or **Condition** defined in steps 4 or 7.*

Step 10 – Test the Auction, Begin to Bid

It's always good to test an auction to verify it is functioning as expected.

1. Log in as the top bidder, **Jeffrey Salazar** and from the **Navigator** at the top, select **Bidding**.
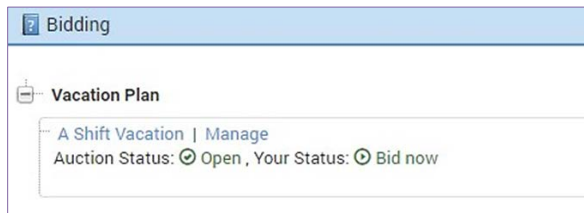
2. Notice the **Vacation Plan** is visible and provides **Jeffrey Salazar** the eligible status to **Bid now**. Select the **A Shift Vacation** to start bidding. *Note: Jeffrey Salazar has the Manage selection as well because he's a TeleStaff Administrator.*
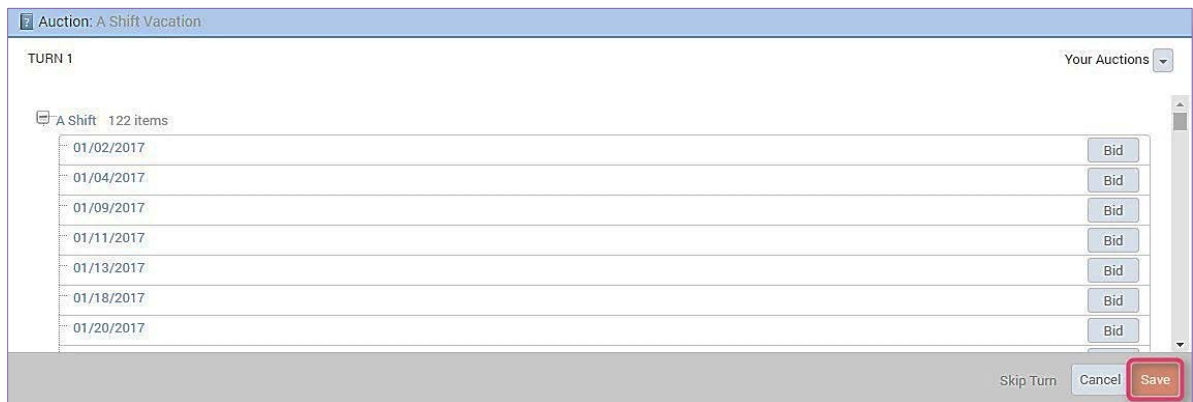
3. **Bid** on some desired dates and click **Save** at bottom right.
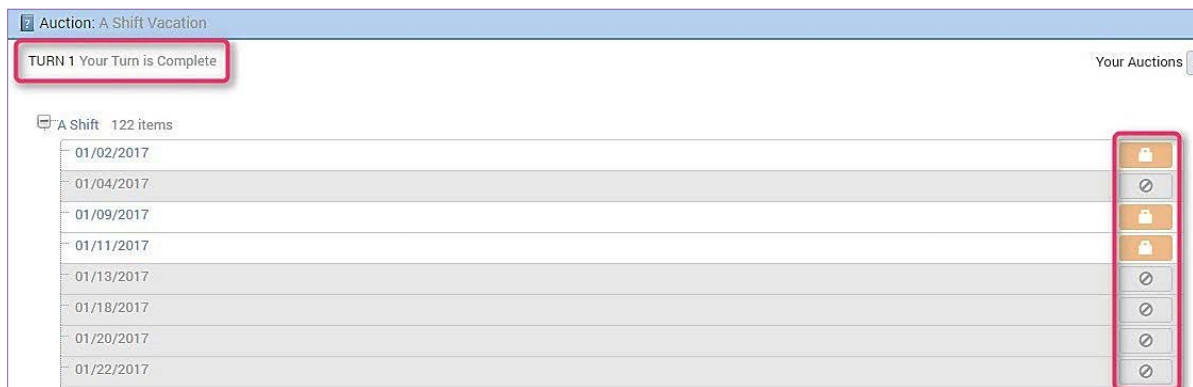
4. Upon clicking the **Save** button, Jeffrey's turn is complete as noted by the notation top left, his selected days are **orange** and have a **lock icon** and all other days are unavailable.

5. Log back in as the **Administrator** and from the **Navigator** at the top, select **Bidding** and at the **Vacation Plans A Shift Vacation**, select **Manage**.
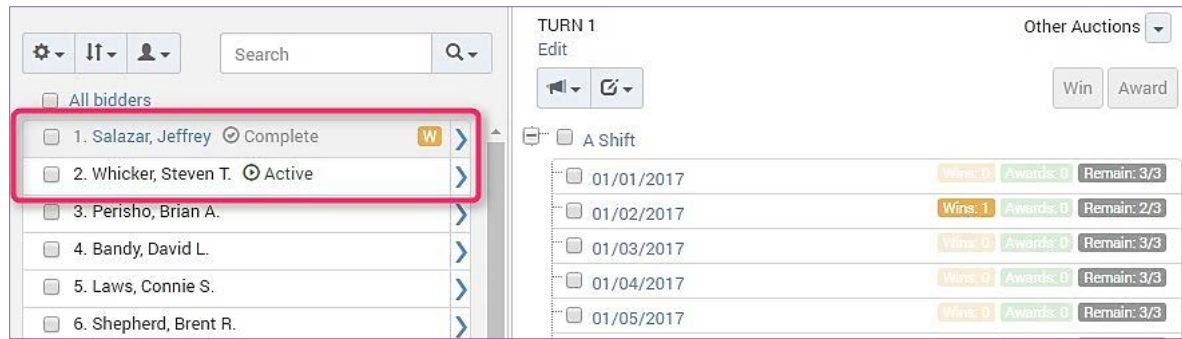
6. Notice **Jeffrey Salazar** is marked as **Complete** and **Steven Whicker**, second on the list, is now the **Active** bidder.

Exercise 2 – Change the Auction to Control Per Day Rank Limitations.

Objective – Continuing with the previous exercise, the auction already allows a maximum of three users off per day, but some departments instill controls on how many of each rank are allowed off.

In this exercise, allow a maximum of 3 users off per day but utilize auction Quantities to set limitations on ranks. Allow a maximum of 1 Captain off per day, 2 Engineers and/or 3 Firefighters.

Step 1 – Create Quantities for the Auction

1. Logging in as the **Administrator** and moving back to **Setup**->**Bidding**->**Bidding**, select **Quantities**.

2. Select **Add** to create a quantity.
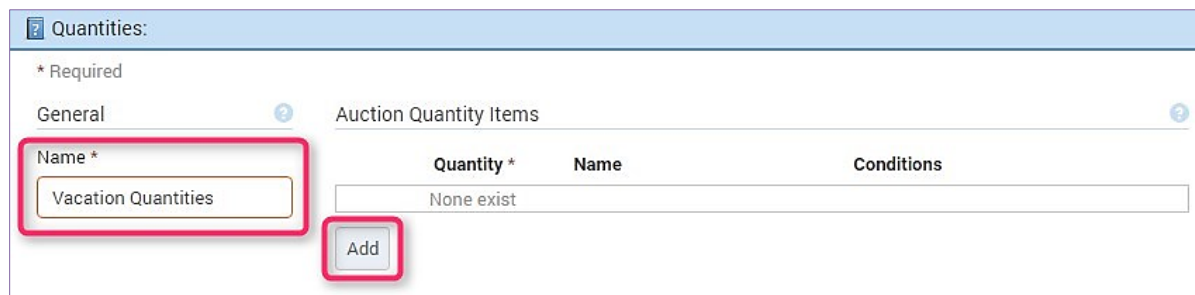
3. The **Quantities** window appears. Enter a name in the **Name** field, **Vacation Quantities**.

4. Select **Add** to define a rank quantity.

5. In the **Name** field, enter **Captains**, set the **Quantity** of captains to **1**.

6. In the **Conditions** field use the Dynamic Argument, **PERSONHASJOBTITLE( )**. *Enter the gray number of the Captain rank in the parenthesis.*

7. Add additional quantities for Engineers and Firefighters:

- **Engineers**
  - **Quantity** = 2
  - **Conditions** field: PERSONHASJOBTITLE( )
- **Firefighters**
  - **Quantity** = 3
  - **Conditions** field: PERSONHASJOBTITLE( )

Note: In some instances, the order of the quantity items can be very important. When the bidding module looks at Auction Quantity, it compares a user to the Quantities starting at the top and stops at the first quantity that meets the users' attributes. For example, if the scenario is 2 firefighters with the paramedic specialty are allowed off per day but 3 firefighters without the specialty can take the day off, the order of the quantities must set the firefighter paramedic above firefighters. If firefighter is above the firefighter paramedic, firefighter paramedics qualify under firefighter quantity, as they have the requirement of firefighter. The firefighter paramedic quantity must be

ordered above firefighter so that a firefighter paramedic stops at the first quantity but firefighters do not and move to the next quantity.

8. When finished, click **Save**. *Note: When Auction Quantities are utilized, all ranks eligible to bid must be included in the quantity. Any ranks not called out in the Auction Quantity will not be able to submit bids. For example, in our exercise, although the Battalion Chief rank was included in the Bidder Ranks rule, they will not be able to bid because they were not included in the quantity.*

### Step 2 – Assign Quantity to the Auction

1. Move to the **A Shift Vacation** auction by clicking **Setup** located in **Navigation** at the top->**Bidding**->**Bidding**. From the **Auctions** folder select the **A Shift Vacation** auction.

2. To assign the **Auction Quantity** to all days at once, on the left side of the **Edit Auction** window, click the **checkbox** for the first date.

3. From the **Select** drop-down, select **Select same level**. All days are now checked.

4. Click on the **Edit** button. All days are now highlighted.

5. From the **Dynamic Auction Quantity** drop-down, select **Vacation Quantities**. **Save**.

6. Note that the **Static Maximum** remains at a total of **3** people off per day.

Step 3 – View Results

When a change is made to an existing auction with bid selections already entered, the auction will require a reset in order to apply those changes.
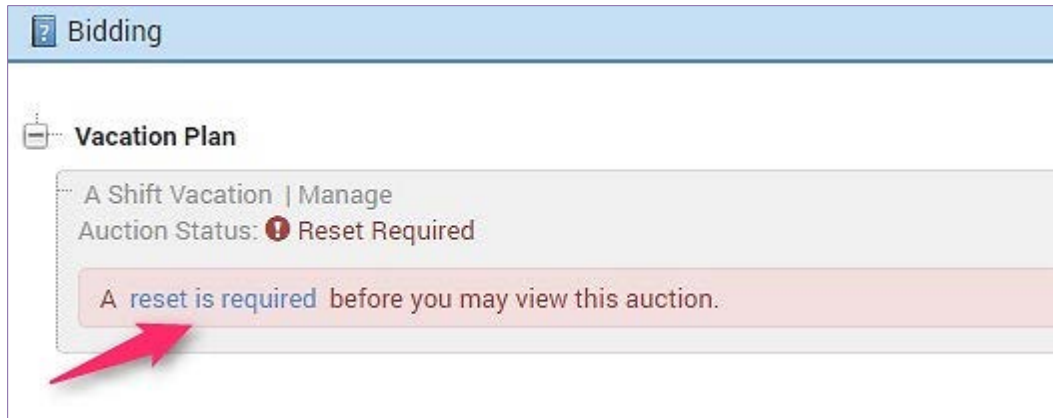
A reset is required for the A Shift Vacation auction. When the bidding originally started, there were no limitations on how many of each rank could receive vacation on any one day. Now the auction must limit the numbers of ranks per day and must calculate how many of each rank have already received vacation days.

1. Select **Bidding** from the **Navigator** at the top to move to the **A Shift Vacation** auction. The reset warning appears.

2. Click on the **reset is required** link.
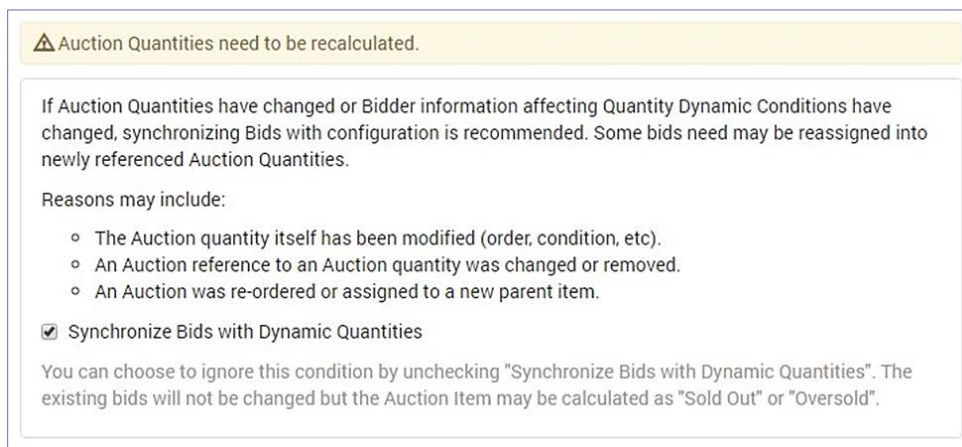
3. A second warning appears. Keep the **Synchronize Bids with Dynamic Quantities** checked. Clicking **Save** to return to the **Bidding** window.

4. Click on the **Manage** link.

5. On the right side of the auction, select **Reset auction…** from the **Auction** drop-down.
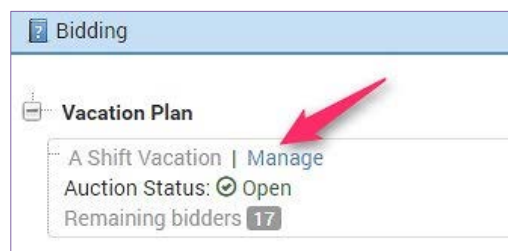
6. The **Reset Auction** window appears.

7. Check the **Clear bid records/status** checkbox and the radio button **Remove bids, wins and awards – Keep nothing**. *This selection removes all bidding that has occurred in this auction. The process of resetting an auction is used by customers to clean out the previous year's auction in preparation for the next year.*

   Note the other option of Synchronize Bids with Dynamic Quantities. If this option is selected, bids that have already occurred will not be removed, the system will recalculate all bids matching to the assigned Auction Quantities.

8. **Save**.

9. The Auction is cleared out and ready for use.

10. Click on **Jeffrey Salazar's** blue arrow to view his auction selections.

11. Notice he is not qualified to bid on any items. This is because Battalion Chiefs were not included in the **Auction Quantities**. Either go back and add Battalion Chiefs to the **Vacation Quantities** or when testing, mark him as **Skip Bidder's Turn** (this will be covered in the next exercise).

Exercise 3 – Establish Multiple Turns in the Vacation Auction

Objective – Continuing with the previous exercise, to establish a fairer auction, let's now define that a staff member may only bid for 2 vacation days at a time. Once all other bidders are finished with their bids, another turn starts. Multiple turns prevent senior staff from selecting all the prime vacation days. Bidders will need to prioritize preferences, selecting their top two items in the first turn. Each bidder is allowed 10 vacation days per year. Bidders select 2 days per turn, totaling 5 rounds.

Step 1 – Change the Auction to Establish Turns

1. Moving back to **Setup**->**Bidding**->**Bidding**, select **Auctions**. Select the **A Shift Vacation** auction.

2. In the **Advanced** section, enter **10** in the **Bidder maximum wins per auction** field. The auction is now set to allow for a maximum of 10 wins per user.

3. Enter **2** in the **Bidder maximum wins per turn** field. This limits the amount a user can win in any one turn to a maximum of 2.

4. **Save**.

Step 2 – View Results

Again, if testing has been done in the auction and currently contains bids, this change will result in the Reset Required warning. Instructions on resetting the auction are found in Exercise 2, Step 3.

1. Move to the auction by clicking **Bidding** in the **Navigator** at the top.

2. From the **Vacation Plan's A Shift Vacation**, select **Manage** to manage the auction. *Reset the auction, if necessary.*
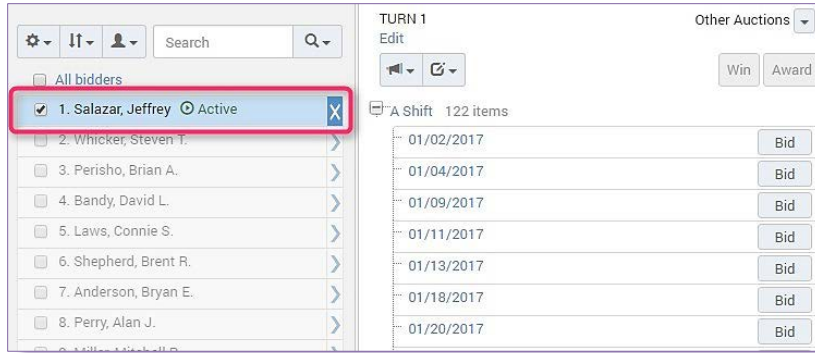
3. Click on the **blue arrow** of the first bidder marked as **Active**. *Note: In this example, Jeffrey Salazar is now able to bid. This is because Battalion Chiefs were added to the Auction Quantities as 1 Battalion Chief allowed off per day.*
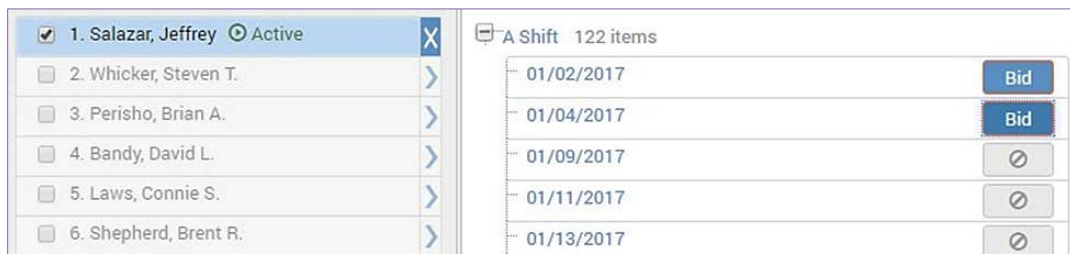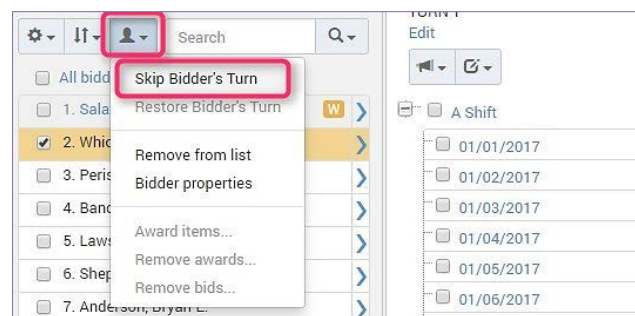

4. Begin **bidding** on dates and ensure each user is only allowed **2** bids per turn.
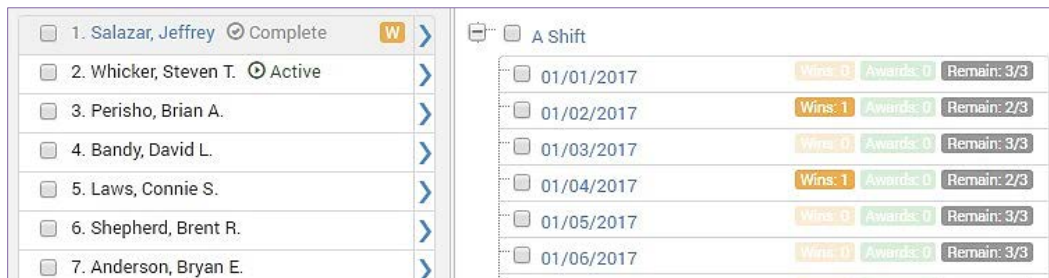
5. Once the bidder has reached the maximum allowed, **save** the bids and move on to the next active bidder.

6. **Check** the checkbox for the next active bidder and from the **head icon** drop-down, select **Skip Bidder's Turn**. This bidder's turn has been skipped and the next bidder becomes active.

7. Continue bidding for each user by either selecting dates or skipping turns until the

list is exhausted and another round is ready to begin. *Note: The assigned auction quantities also come into play.*

8. When all bidders are marked **Complete**, select **Start new turn** from the **Auction** drop-down to start the next turn.

9. A confirmation window appears, select **OK**.

10. The auction now has now moved on to **Turn 2**. The first bidder is **Active** again and bidding is ready to begin.

Exercise 4 – Establish the Auction to Award Based on Accrual Balances

Objective –If the system is configured with accruals, an auction can award items based on a user's accrual balance.

Continuing with the previous exercise, let's now change the auction to look at a user's vacation balance and award auction items based on what the user has available. Also, regardless of the users' accrual balance, they may not take more than 30 vacation days in any one year. Configure the auction to check Dynamic and Static Issues upon the saving of a bid.

Step 1 – Change the Auction to check Dynamic and Static Issues for Limitations

1. Moving back to **Setup**->**Bidding**->**Bidding**, select **Auctions**. Select the **A Shift Vacation** auction.

2. To set the auction to limit awarding vacation days based on a user's accrued balance, move to the **Advanced** section.

3. **Check** the checkbox **Check Dynamic Issues on 'Save'**. The auction now checks the static issue associated with accruals to ensure users have sufficient accrued hours to win the selection.
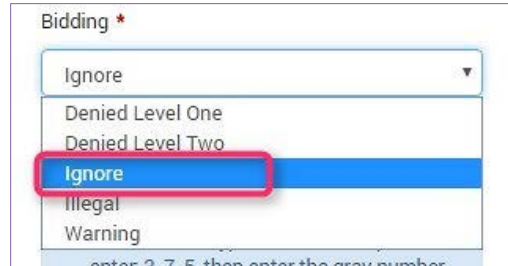
Note: When setting this feature be sure and review any existing Dynamic Issues. Set the Bidding drop-down to ignore issues not pertinent to the auction.
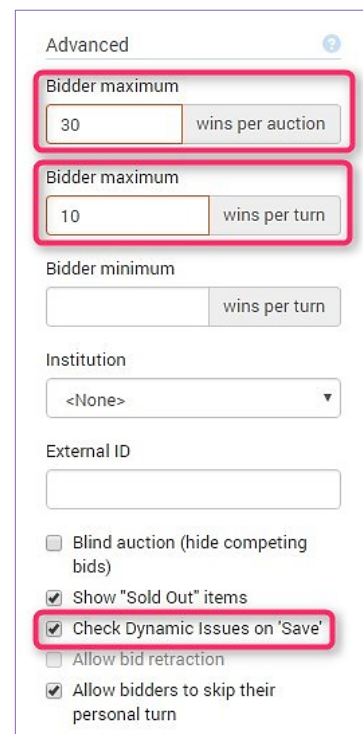
4. At **Bidder maximum wins per auction**, enter **30**. The auction is now set to allow a maximum of 30 wins per user.

5. At **Bidder maximum wins per turn**, enter **10**. This breaks up the amount a user can win in any one turn to a maximum of 10.

Step 2 – Setting Up Accruals

This exercise assumes the system is configured with an accrual bank for vacation and users have hours added to their vacation banks.

1. For this exercise, ensure the first bidder on the list, **Jeffrey Salazer** has **3 days** of accrued hours available in his bank (**72 hours**).

2. Add **12 days** worth of accrued hours (**288 hours**) in the next bidders bank.

Step 3 – View Results

1. Move to the **A Shift Vacation** auction by clicking **Bidding** in the **Navigator** at the top.

2. From the **Vacation Plan**, select **Manage** to manage the auction. *Reset the auction, if necessary.*
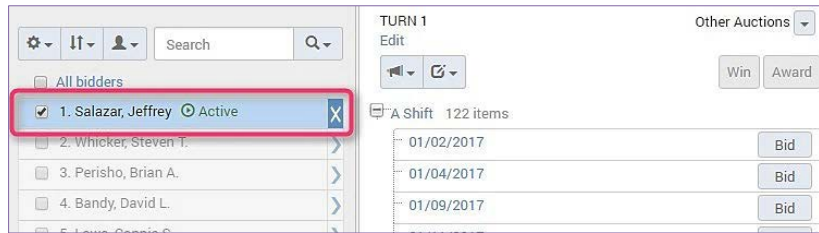
3. Click on the blue arrow of the first bidder, **Jeffrey Salazar**.

4. Begin **bidding** on Jeffrey's 10 vacation days. **Save**.

5. The **Accept Issues** window appears requesting confirmation to override the **Exceeded accrued hours for this work status** for each day beyond the accrual balance.
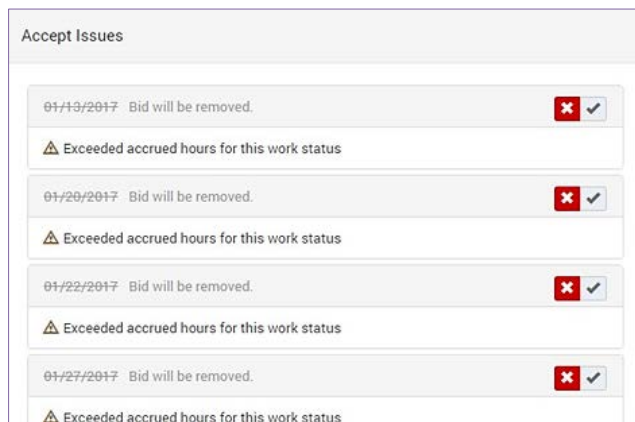
6. Click the **X** box for each of the dates to prevent the override for items not accrued. Notice the date becomes crossed out and has the notation, **Bid will be removed**. Click **OK** to return to the **Turn 1** window.

7. All dates are removed except for the first three. **Save**. *Note: The user can unselect the remaining bids and select his top three choices instead.*

8. **Jeffrey Salazar** is marked as **Complete** and **Steven Whicker**, second on the list, is now the **Active** bidder.

9. **Log in** as the second bidder.

10. The **Contact Log** appears letting the user know he is now the active bidder.

11. Move to the auction by clicking **Bidding** in the **Navigator** at the top.

12. Begin bidding on the user's 10 vacation days. **Save**.

13. The auction now displays all the user's selections and the notation at the top, **Your Turn is Complete**.