Section 2 - Woom onTrax User Materials

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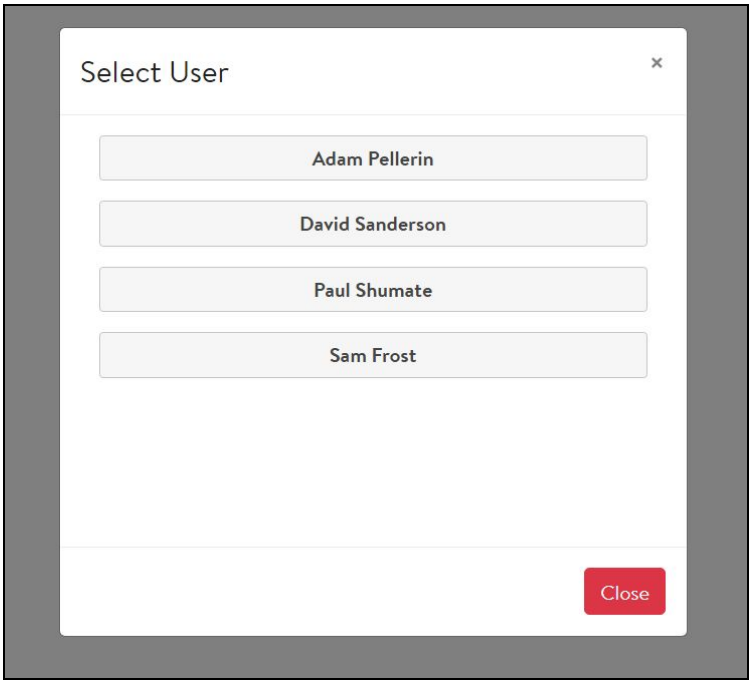
2.1 Quick Reference Guides

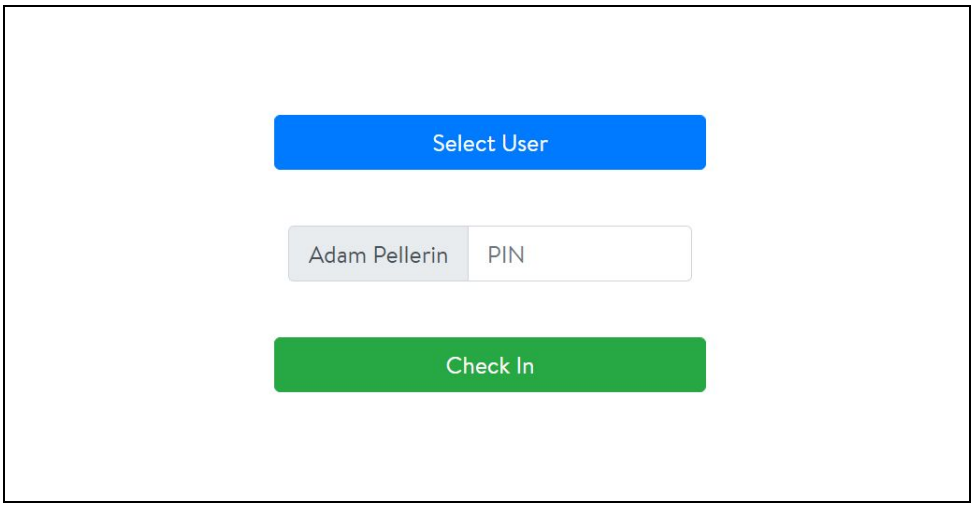
2.1.1 Technician QRG

Welcome to onTrax, Woom's new productivity information system. It allows the bike technicians to log their production work through a low-cost tablet and intuitive interface. This will improve data integrity and ensure a more consistent and efficient production process.

(1) Log-in / Check In

Select Your Name, Enter your PIN, and Press the "Check In" button so that you can be directed to the Production Page.



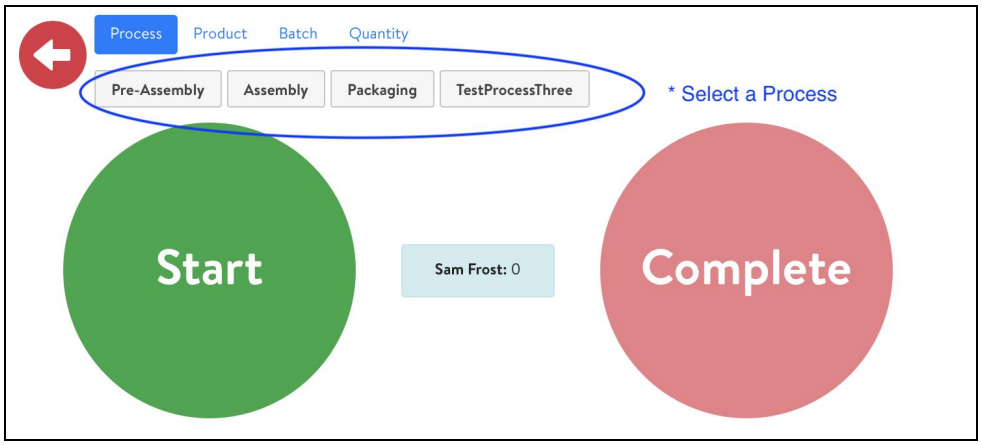


(2) Production Process

1 - Standard Production Process

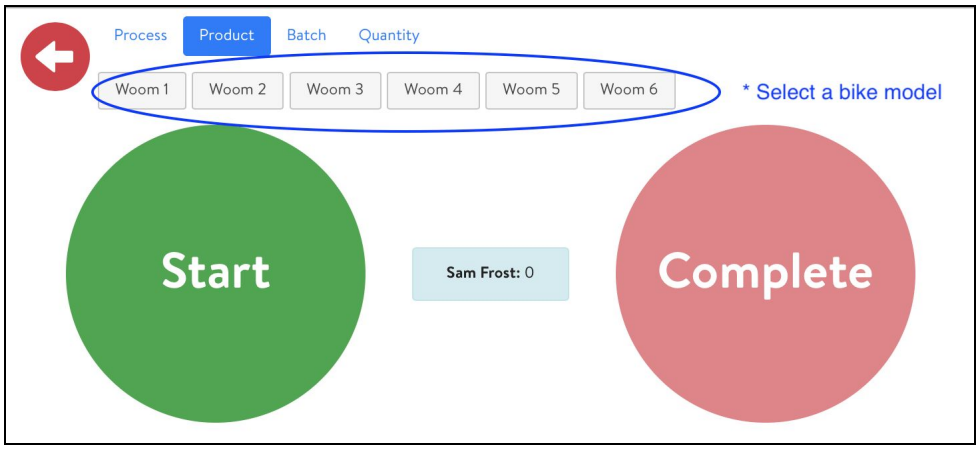
1) Select a Process:

For example, select “Pre-Assembly”, “Assembly”, or “Packaging”



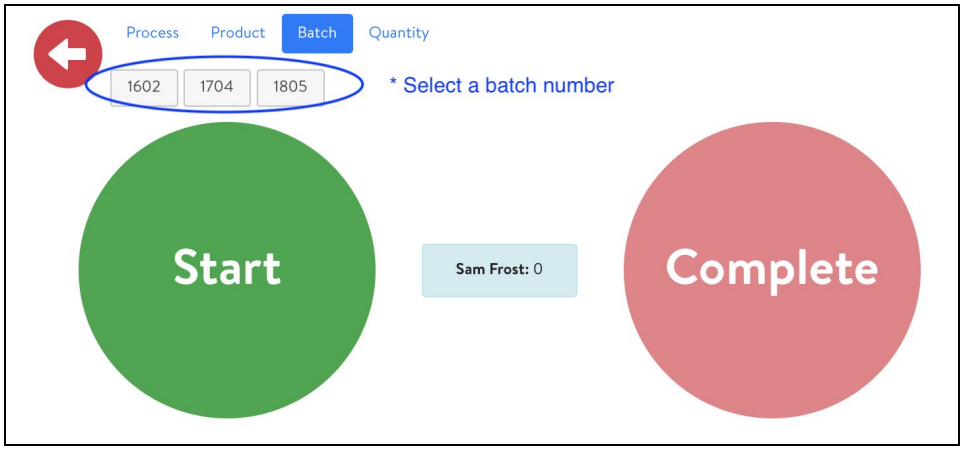
2) Select a Product:

Select the bike model you will work on.



3) Select a Batch number:

Select the Batch number that is shown on the box of the bike that you will work on.

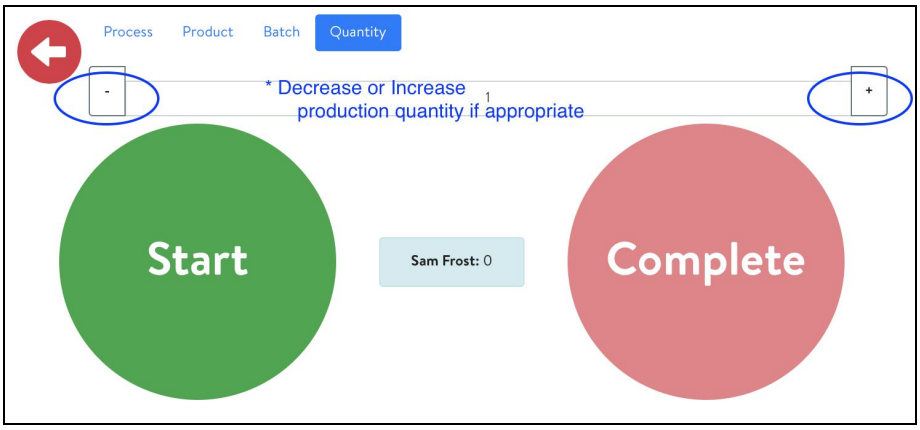


4) Select Bike Quantity:

Select the bike quantity that you will work on. Bike **Quantity** will default to 1.

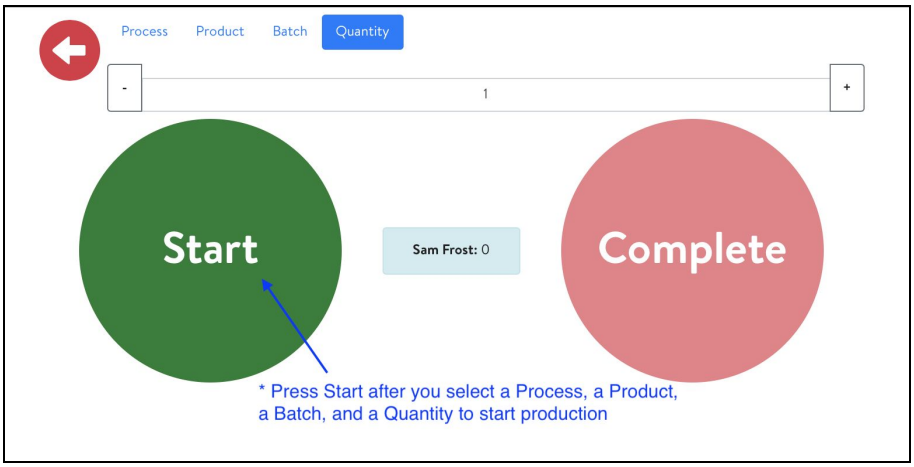
i) If you are in **Pre-Assembly**, increase the **Quantity** to your desired level for one production log..

ii) If you are **not** in **Pre-Assembly**, most-likely you can ignore this value because it will default to 1 bike. However, if for any reason you are working on more than one bike, make sure to adjust this value accordingly.



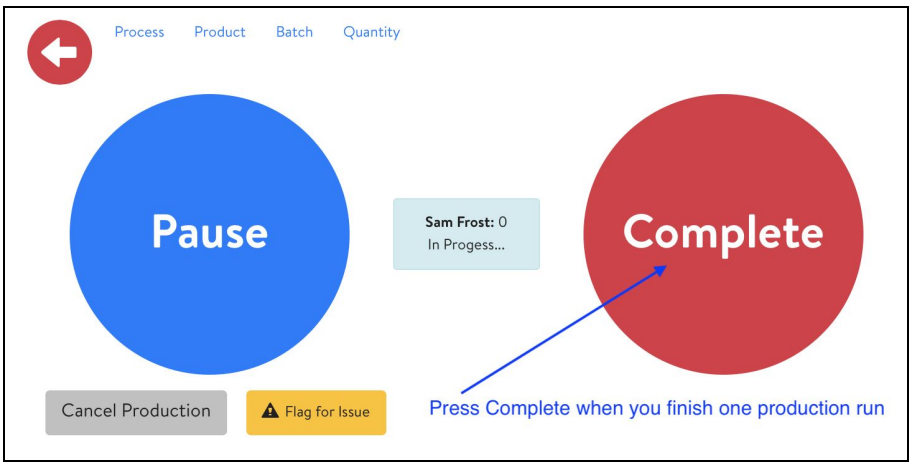
5) Starting a Production Process:

Press **Start** after you select all the measures. Then, start bike production.



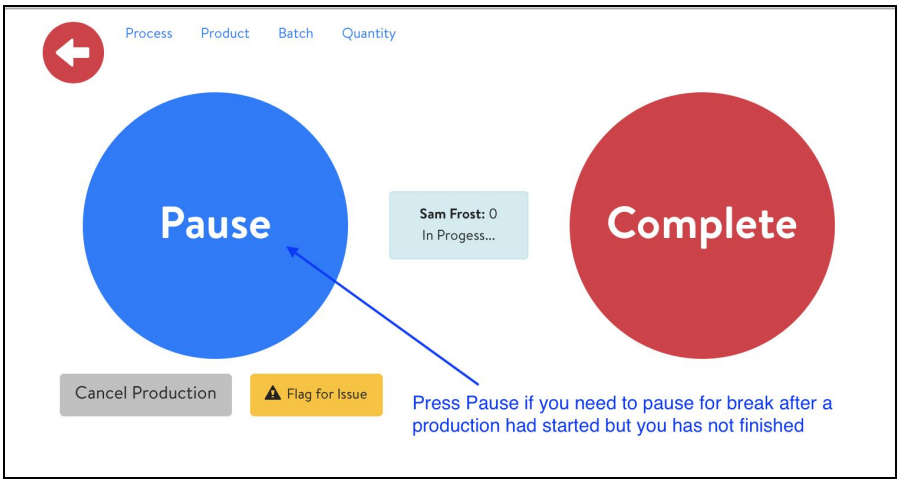
6) Completing a Production Process:

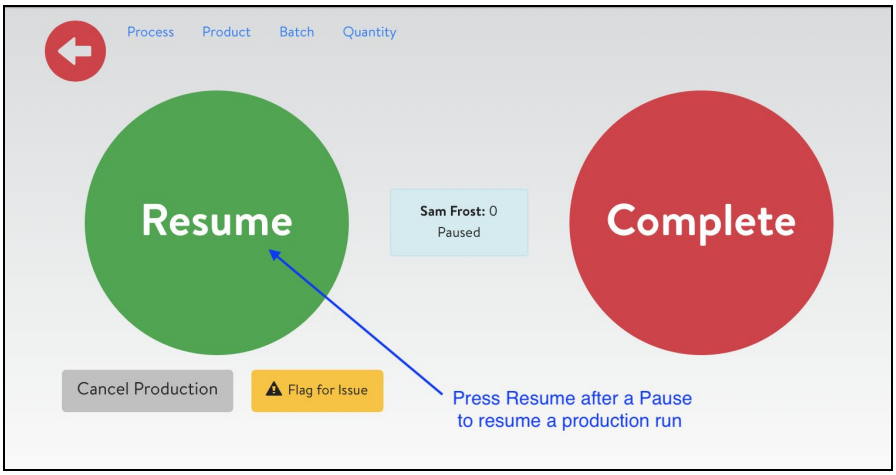
Press **Complete** after you finish your work on your bike/bikes.



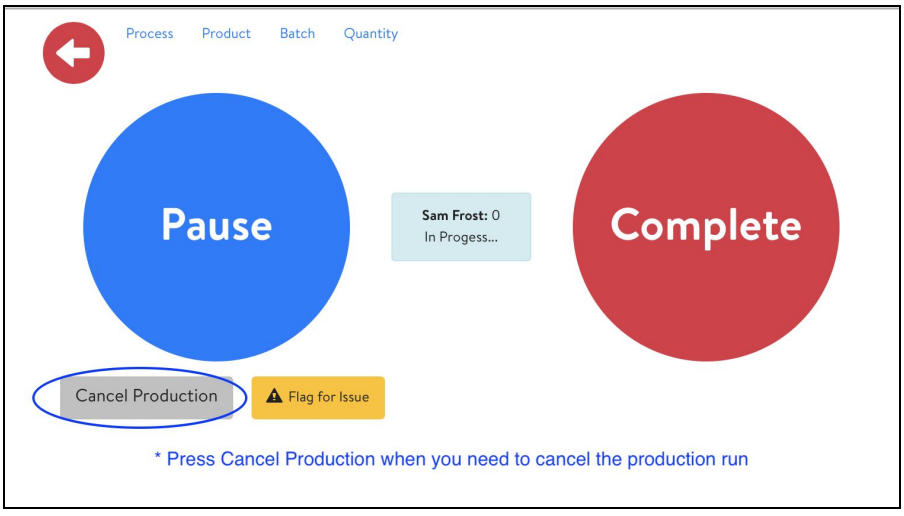
2 - Pausing or Cancelling Production

1) Pause – Press the **Pause** button to stop the tracker temporarily. This is in case you need to step away from production, such as for an unscheduled meeting with a manager. You can press the **Resume** button to resume the production run after a pause.





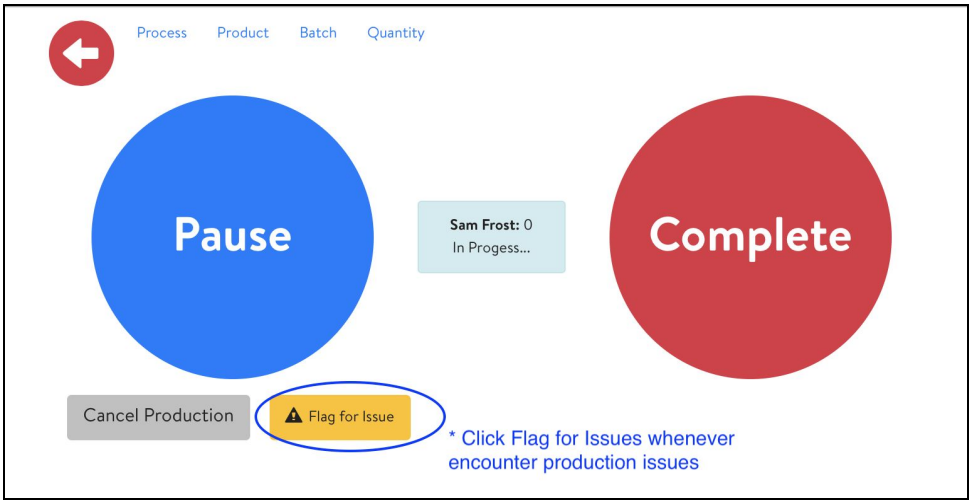
2) Cancel – Press the **Cancel** button to stop production tracking completely. This is in case you accidentally begin production or make mistake(s) selecting Process, Product, Batch ID, etc.

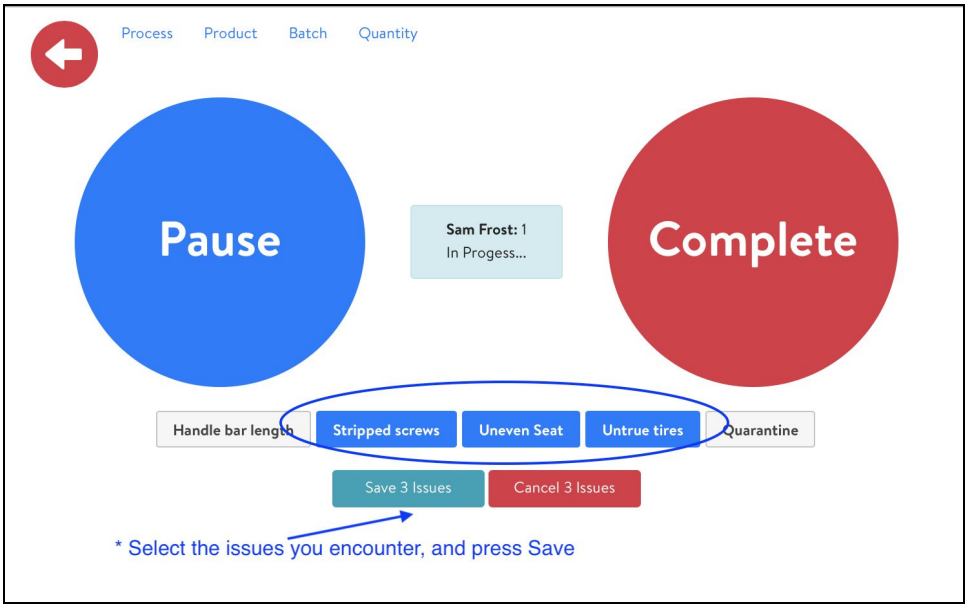


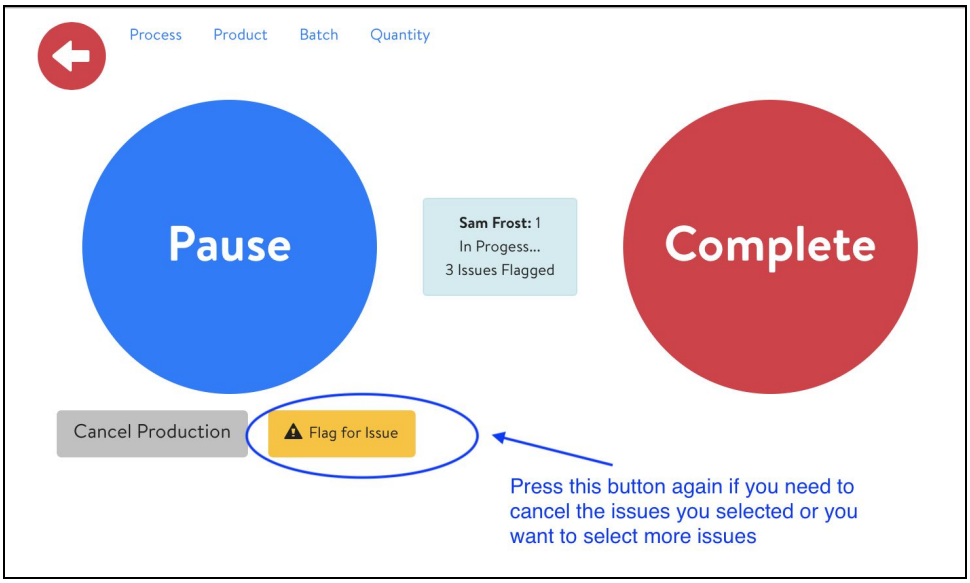
3 - Flagging Production Issues

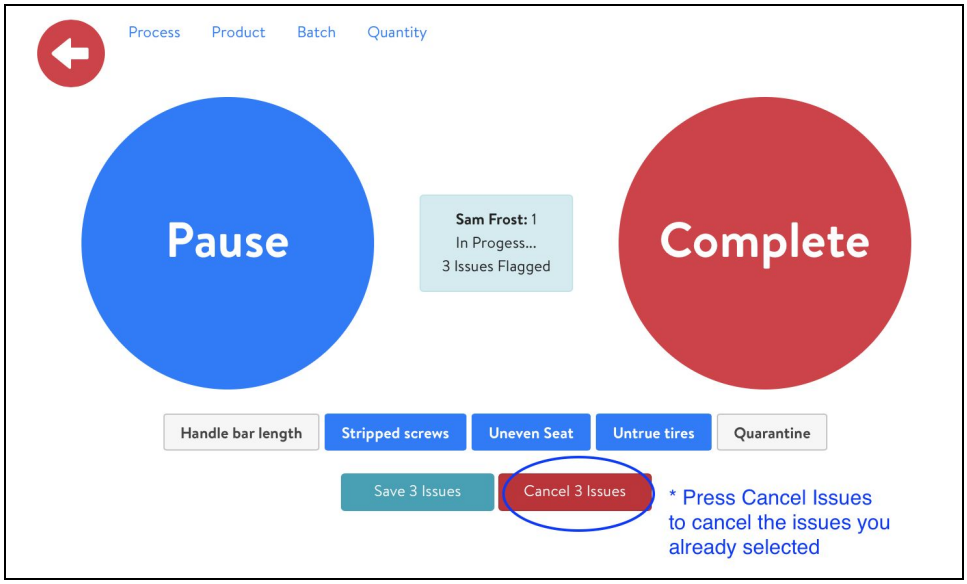
It's possible you will encounter manufacturing issues with bikes. When you encounter issues, select the **Flag for issue** button and then you can select which issue(s) the bike has. You are able to select multiple issues.

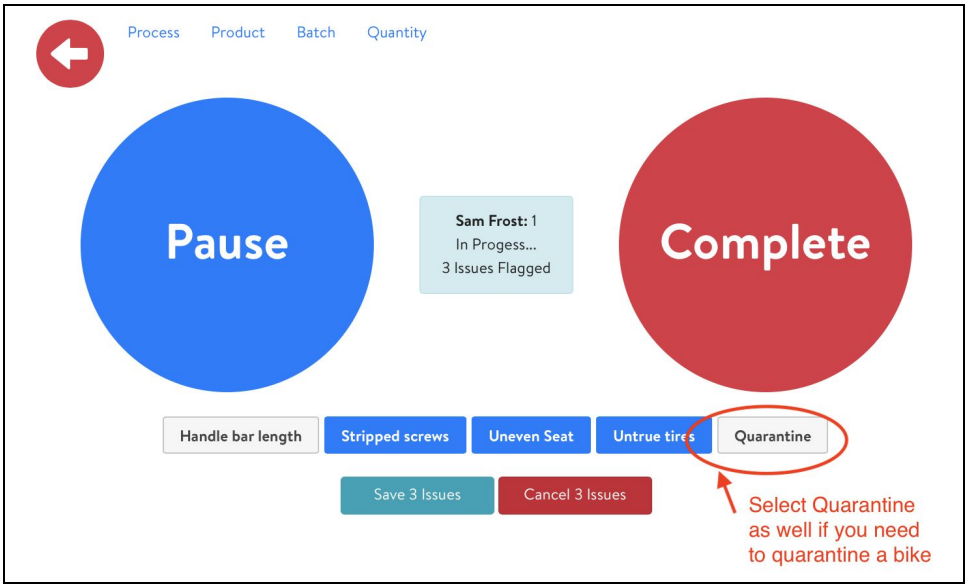
1) **Selecting Issues** – Tap the issue(s) the bike has. If you accidentally select an issue, you can tap the selected issue button again to deselect it.
2) **Save Issues** - Press the **Save Issues** button to save the issues. You must press this to save them.
3) **Cancel Issues** - Press the **Cancel Issues** button to cancel the issues you have selected. This is to be used in case you accidentally selected issue(s) or you later determined there weren't issue(s). You can cancel **before or after saving issues.**
4) **Quarantine** – Press the **Quarantine** issues button if a bike has abnormal issue(s) and needs to be taken out of the normal production process. The bike may also have other standard issues, such as with the handlebars or tires. If so, select those issue(s) too. Afterwards, press the **Complete** button to log the quarantine and remove the affected bike from the production process.






Process
Product
Batch
Quantity
Pause
Sam Frost: 1
In Progess...
3 Issues Flagged
Complete
Cancel Production
Flag for Issue
Press this button again if you need to cancel the issues you selected or you want to select more issues


Process
Product
Batch
Quantity
Pause
Sam Frost: 1
In Progess...
3 Issues Flagged
Complete
Handle bar length
Stripped screws
Uneven Seat
Untrue tires
Quarantine
Save 3 Issues
Cancel 3 Issues
* Press Cancel Issues to cancel the issues you already selected


Process
Product
Batch
Quantity
Pause
Sam Frost: 1
In Progess...
3 Issues Flagged
Complete
Handle bar length
Stripped screws
Uneven Seat
Untrue tires
Quarantine
Save 3 Issues
Cancel 3 Issues
Select Quarantine as well if you need to quarantine a bike

(3) Backup Paper Form for System Downtime

System downtime might happen due to power outage or internet malfunction. Utilize the backup production paper form to fill in the production data when system is down. Turn in the production paper to the production manager at the end of the day. The production manager can log the paper forms manual into the system once with application comes back online.

See Section 2.1.3 for more details.

2.1.2 Production Manager QRG

(1) Edit onTrax - Admin of Production Process

Edit onTrax is used by the production manager to define the field values that will be displayed on the technician's portal. For example, when a new technician is hired, their name can be entered into the system through **Edit onTrax,** giving them access to the system. Additionally, within **Edit onTrax**, batch numbers can be added/updated and any new Products, Issues, or Processes can be added.

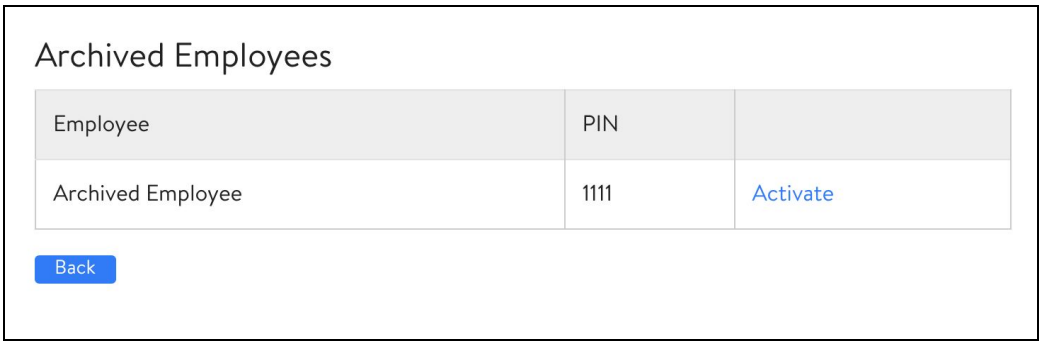
1 - Manage Employees

- Add a new employee
  - Press the **Add** button on the *Employees* tab
  - Enter the new employee's **name** in the first textfield and a **unique PIN** number in the second textfield
  - If the PIN has been used by another employee, you will be asked to enter a unique PIN
  - Press the **Create** button to save the new employee to the system
  - Press the **Back** button if you do not want to add a new employee

- Edit an existing employee
    - Press the ***Employees* tab** to open up the accordion
    - Press the **Edit** button next to an employee name to edit an existing employee's account.
    - You will be **redirected** to page where the employee's current name and PIN can be changed
    - Once you have made the necessary edits press the **Save** button
    - Press the **Back** button if you don't want to change anything.

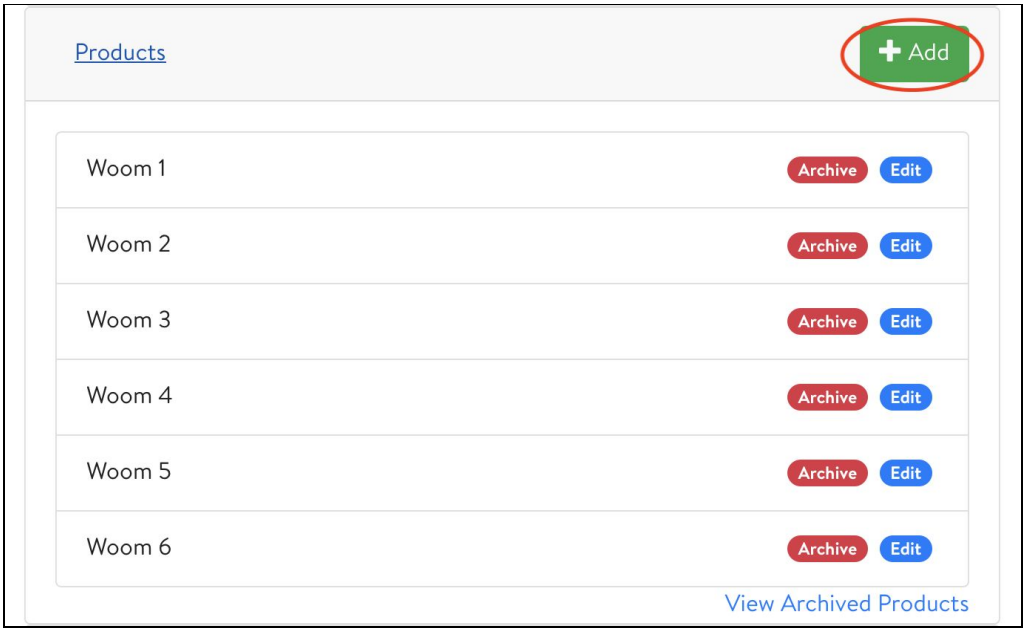
- Archive an employee
    - Press the ***Employees* tab** to open up the accordion
    - Press the **Archive** button next to an employee name to archive an existing employee account
    - You will be **alerted** by the system if the Archive was successful.

- Unarchive an employee
    - Press the ***Employees* tab** to open up the accordion
    - Press the **View Archived Employees** link at the bottom of the accordion
    - You will be **redirected** to a page displaying all archived employees
    - Press the **Activate** button for an account if you want to unarchive an employee account
    - You will be **redirected** to the previous page with a **confirmation** message if the the unarchive was successful
    - Press the **Back** button if you don't want to change anything.

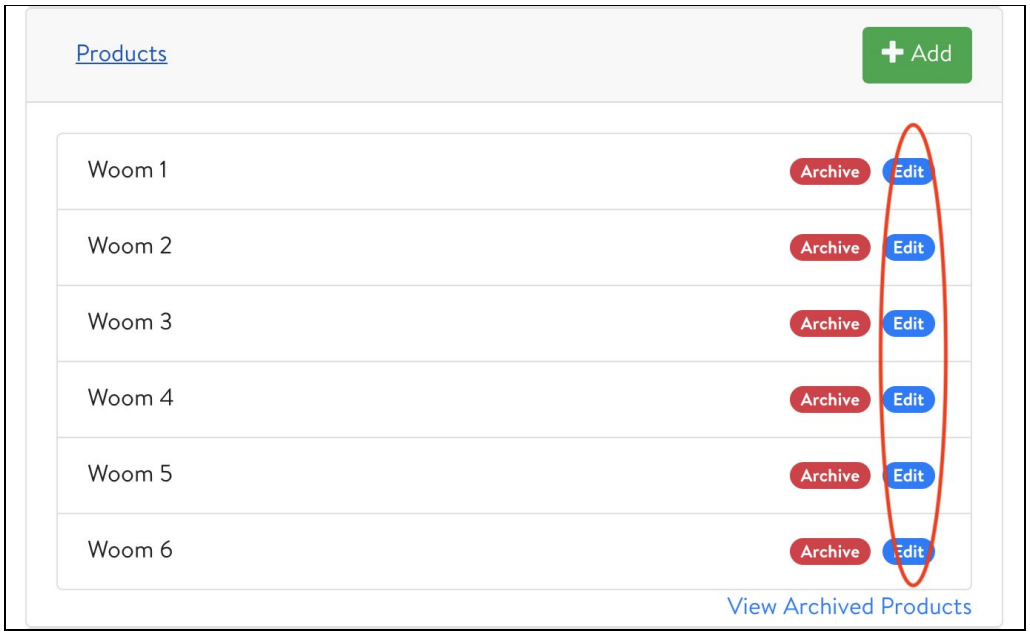


2 - Manage Products

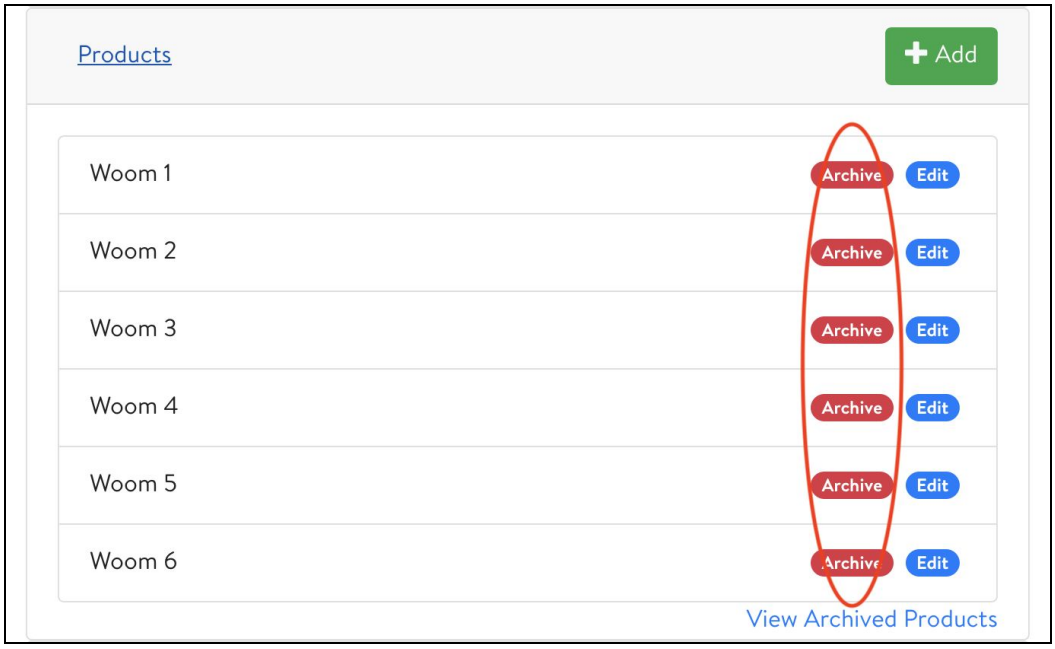
- Add a product
  - Press the **Add** button on the *Products tab*
  - **Enter** the name of the new product into the textfield
  - If the product exists or has already existed, you will be alerted
  - Press the **Create** button to save the new product to the system
  - Press the **Back** button if you don't want to add anything.



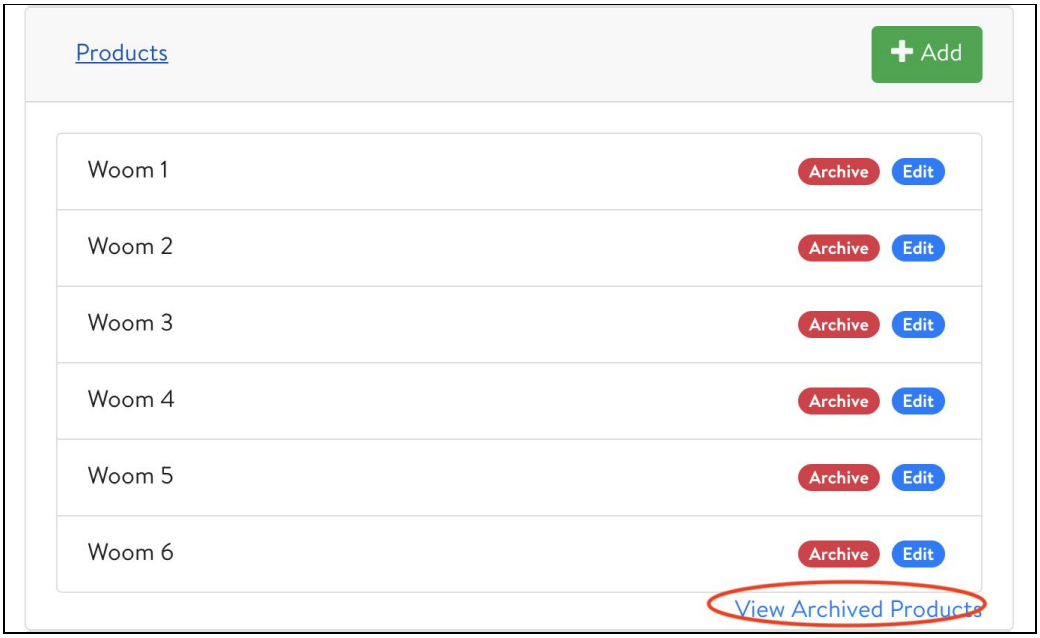
- Edit a product
    - Click on the ***Products* tab** to open up the accordion
    - Press the **Edit** button next to a product name to edit an existing product
    - You will be **redirected** to page where this product's name can be changed
    - Once you have made the necessary edits press the **Save** button
    - Press the **Back** button if you don't want to change anything.



- Archive a product
    - Click on the ***Products* tab** to open up the accordion
    - Press the **Archive** button next to a product name to archive an existing product
    - You will be **alerted** by the system if the Archive is successful.

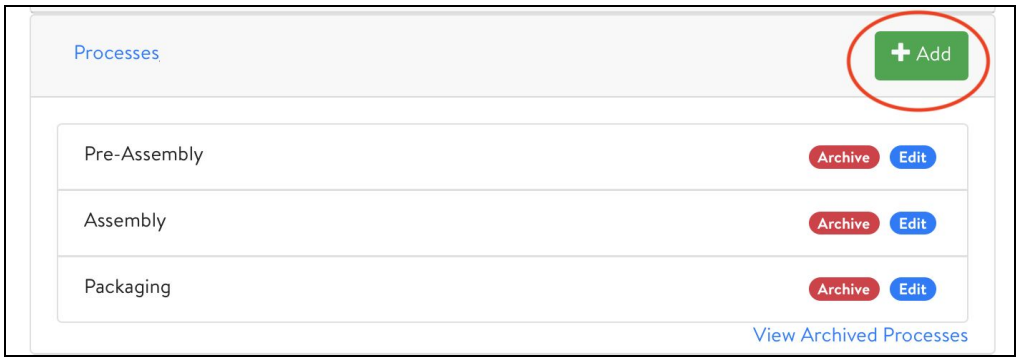


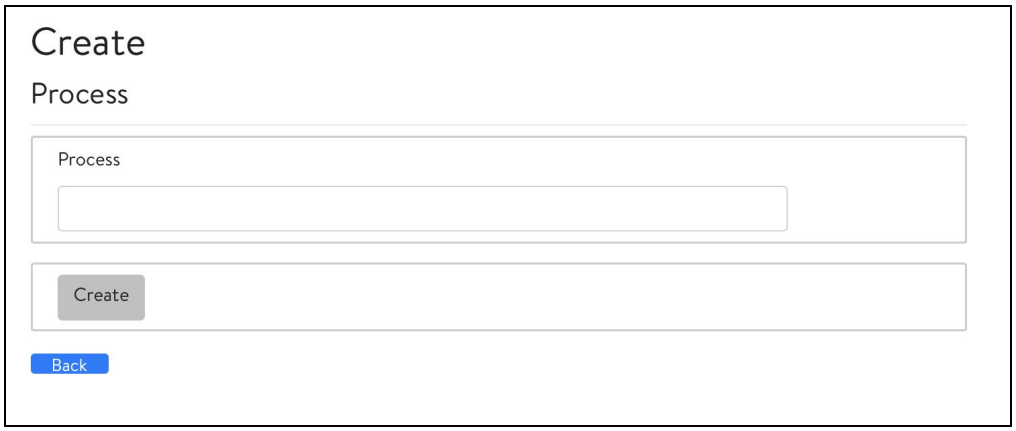
- Unarchive a product
    - Click on the ***Products*** **tab** to open up the accordion
    - Press the **View Archived Products** link at the bottom of the accordion
    - You will be **redirected** to a page displaying all of the archived products
    - Press the **Activate** button for a product if you want to unarchive this product
    - You will be **redirected** to the previous page with a **confirmation** message if the the unarchive was successful
    - Press the **Back** button if you don't want to change anything.



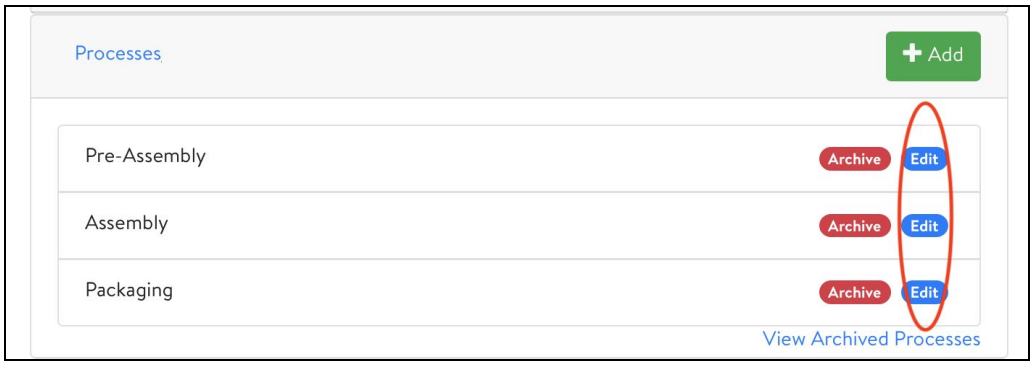
3 - Manage Processes

- Add a process
  - Press the **Add** button on the *Processes* tab
  - **Enter** the name for the new process in the textfield
  - If the process has already existed, you will be alerted
  - Press the **Create** button to save the new process to the system
  - Press the **Back** button if you don't want to add anything.

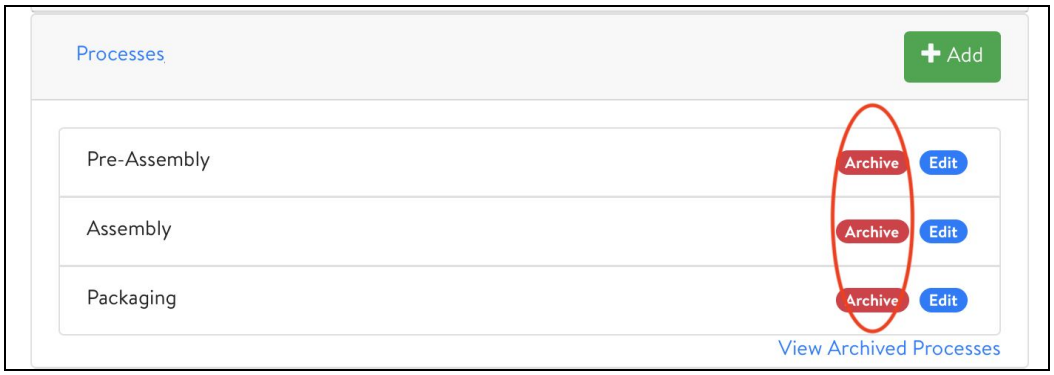




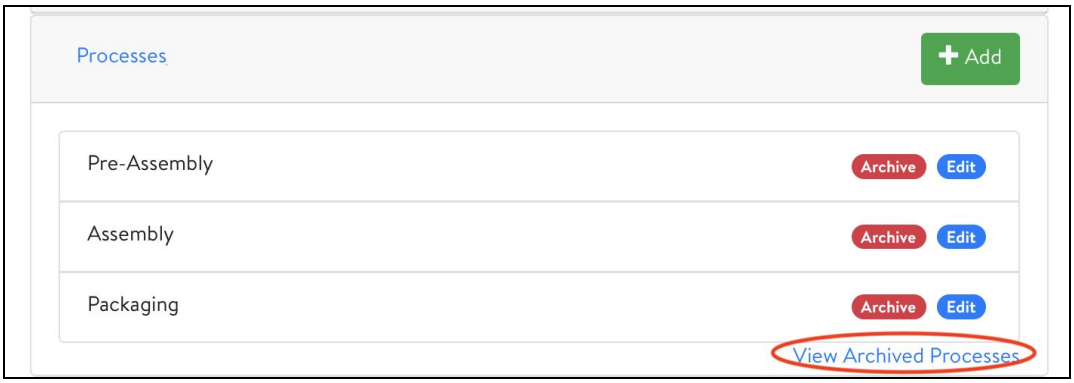
- Edit a process
  - Click on the ***Processes* tab** to open up the accordion
  - Press the **Edit** button next to a process to edit an existing process
  - You will be **redirected** to page where this product's name can be changed
  - Once you have made the necessary edits you press the **Save** button
  - Press the **Back** button if you don't want to change anything.

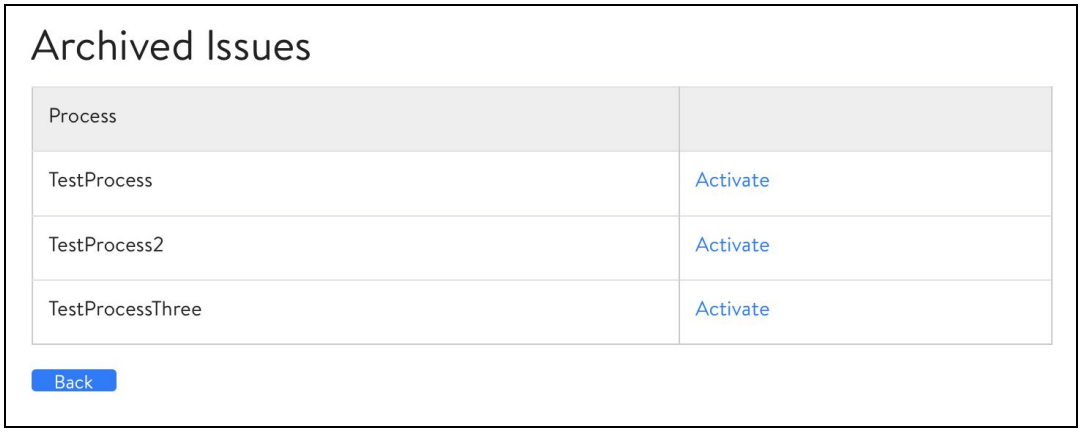


- Archive a process
    - Click on the ***Processes* tab** to open up the accordion
    - Press the **Archive** button next to a process to archive an existing process
    - You will be **alerted** by the system if the Archive is successful.

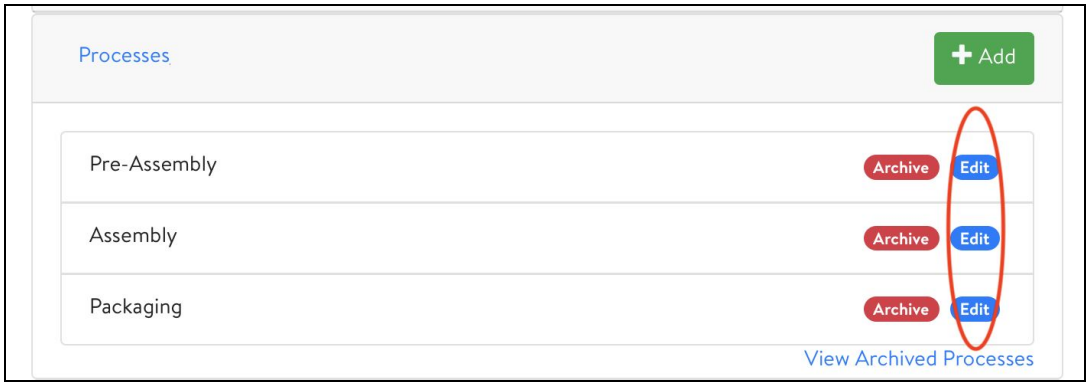


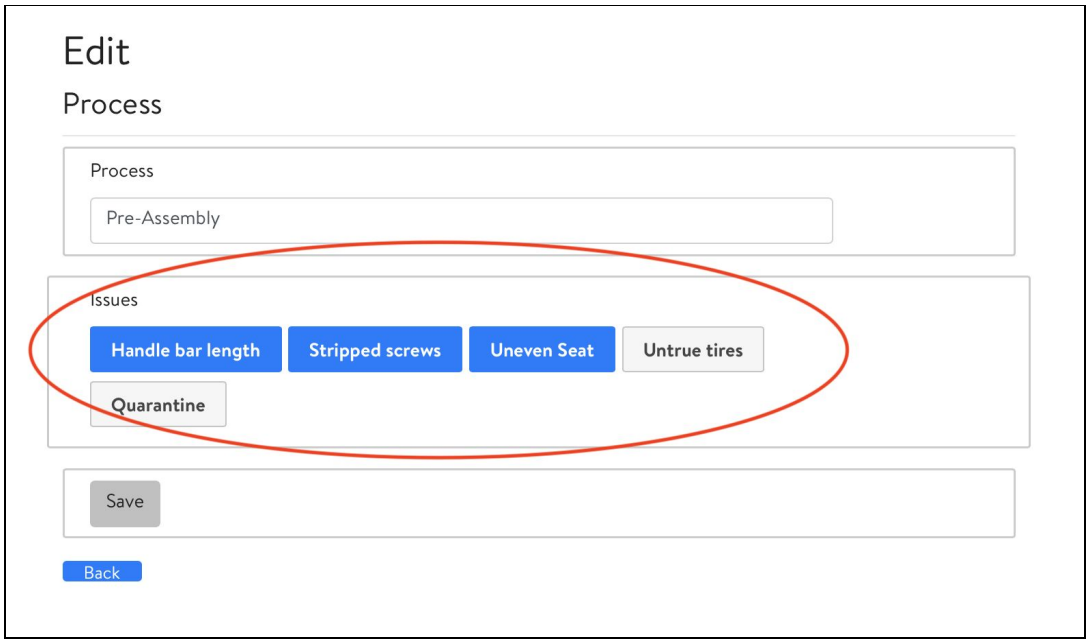
- Unarchive a process
    - Click on the ***Processes* tab** to open up the accordion
    - Press the **View Archived Processes** at the bottom of the accordion
    - You will be **redirected** to a page displaying a list of archived products
    - Press the **Activate** button for a process if you want to unarchive this process
    - You will be **redirected** to the previous page with a **confirmation** message if the the unarchive was successful
    - Press the **Back** button if you don't want to change anything.





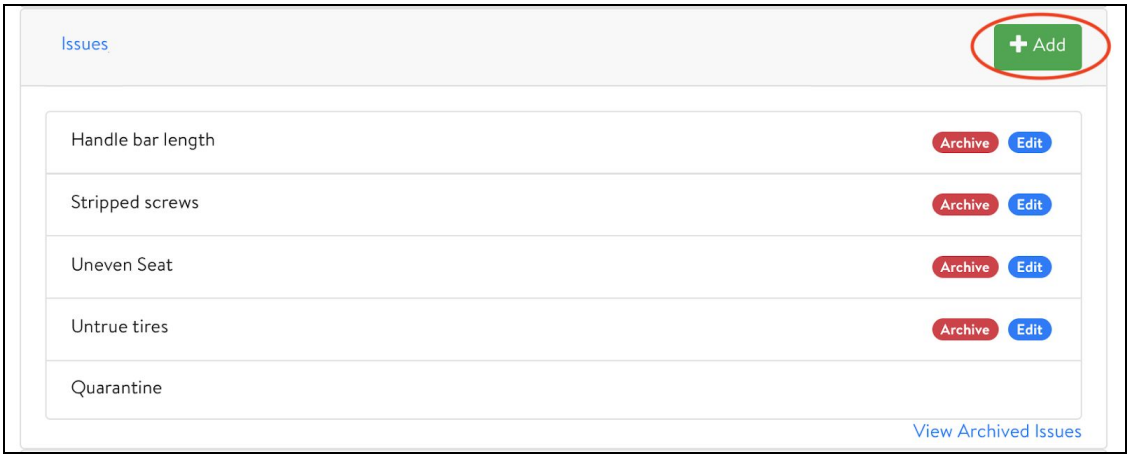
- Linking issues to processes
    - Click on the ***Processes* tab** to open up the accordion
    - Click the **Edit** button next to a process to manage the issues **for this process**
    - **Select** the issues you wish to be shown on the technician portal when they are working on the process selected by clicking on all that apply
    - Once you click on all the necessary issues press **Save** button
    - These issues will now be the only ones shown in onTrax when that process is selected. For **example**, if you only select Handle bars and Stripped screws, and save them for Pre-Assembly, the technicians can only select Handle bars and Stripped screws as potential issues when working on the Pre-Assembly process.



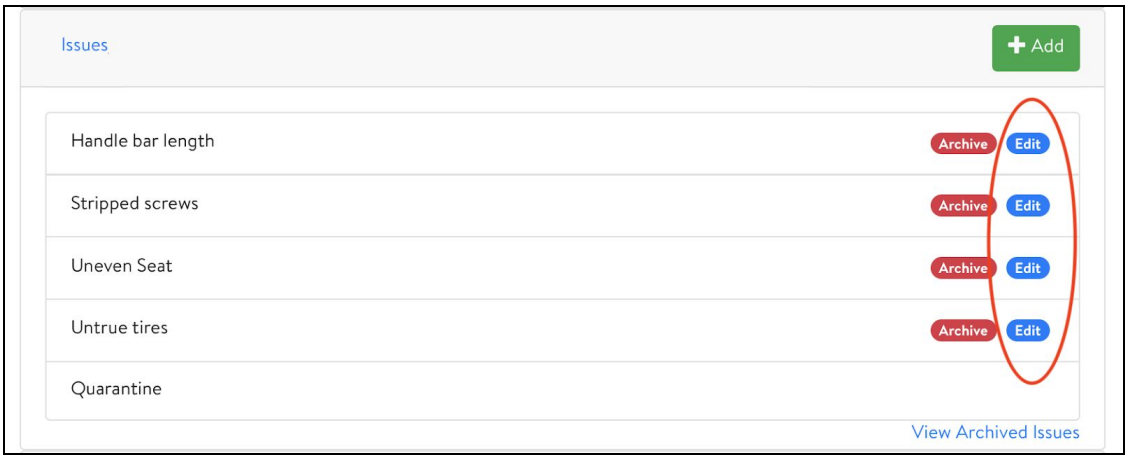


4 - Manage Issues

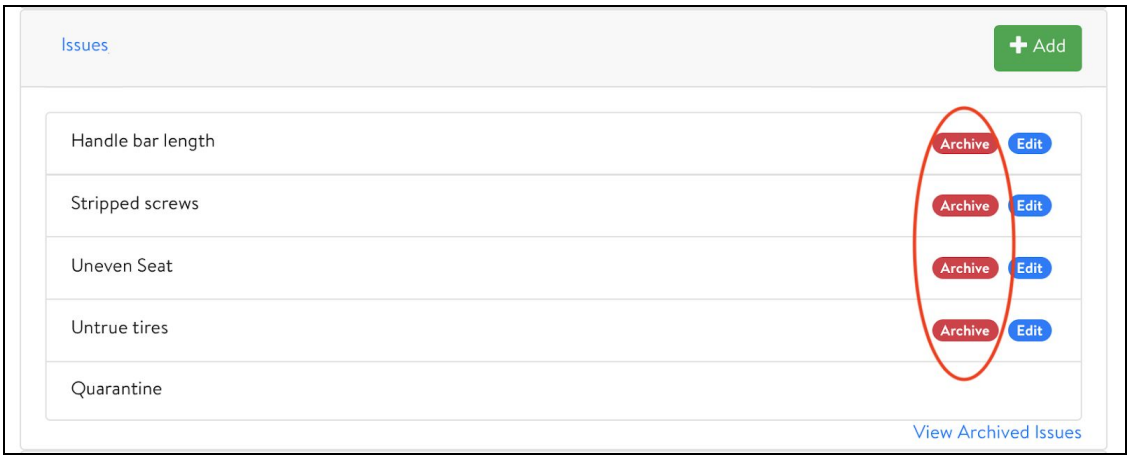
- Add an issue
  - Press the **Add** button on the *Issues* tab
  - **Enter** the name for the new issue into the textfield
  - If the issue option exists or has already existed, you will be alerted
  - Press the **Create** button to save the new issue to the system
  - Press the **Back** button if you don't want to add anything



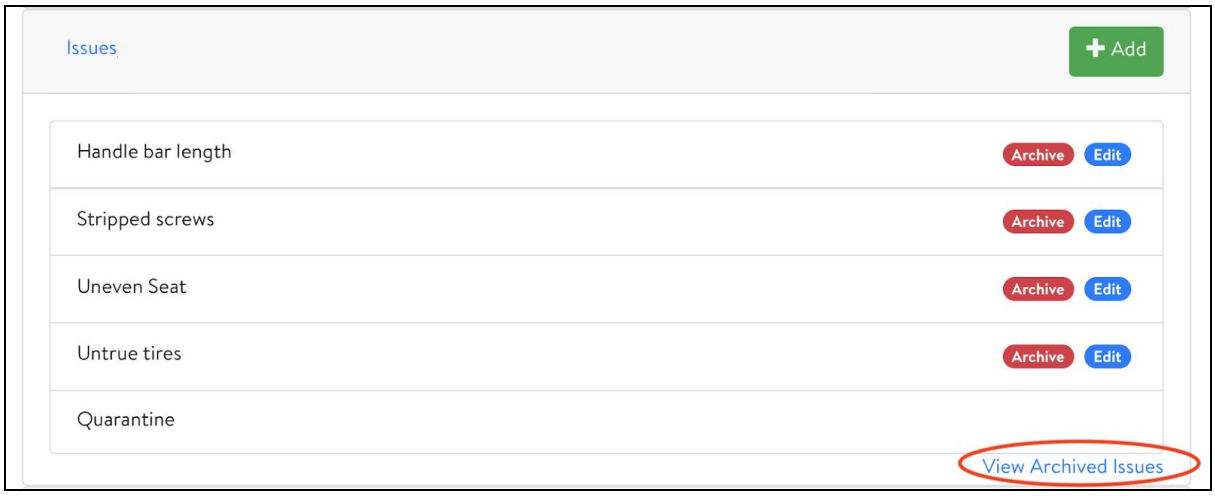
- Edit an issue
  - Click on the ***Issues* tab** to open up the accordion
  - Press the **Edit** button next to an issue to edit an existing issue
  - You will be **redirected** to a page where this issue's name can be changed
  - Once you have made all of the necessary edits press the **Save** button
  - Press the **Back** button if you don't want to change anything.



- Archive an issue
    - Click on the ***Issues* tab** to open up the accordion
    - Press the **Archive** button next to an issue to archive an existing issue
    - You will be alerted by the system if the Archive is successful

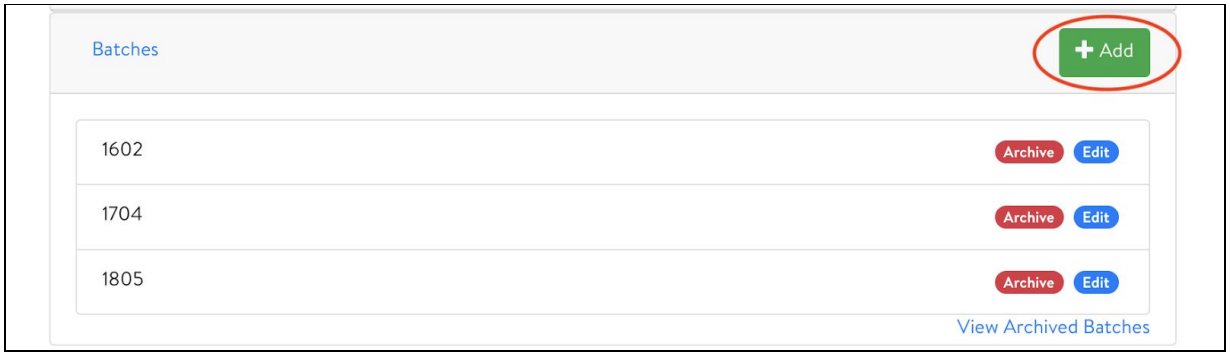


- Unarchive an issue
    - Click on the ***Issues* tab** to open up the accordion
    - Press the **View Archived Issues** link on the bottom of the accordion
    - You will be **redirected** to a page displaying a list of archived issues
    - Press the **Activate** button for a process if you want to unarchive this process
    - You will be **redirected** to the previous page with a **confirmation** message if the the unarchive was successful
    - Press the **Back** button if you don't want to change anything.

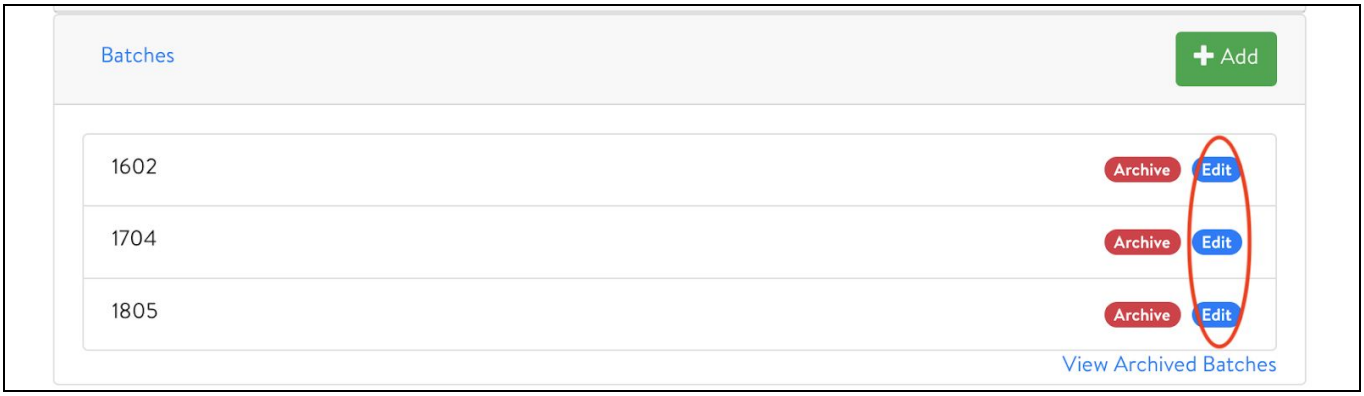


5 - Manage Batches

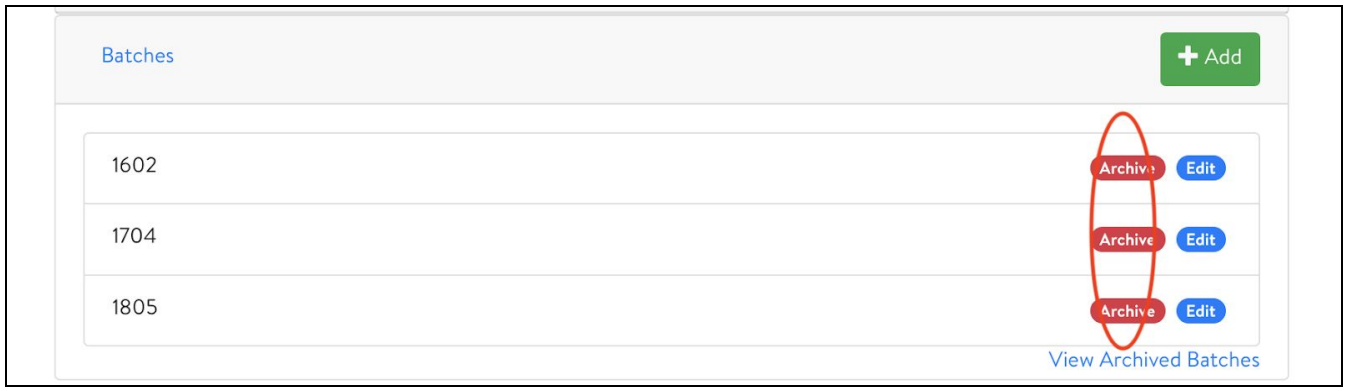
- Add a batch
  - Press the **Add** button on the *Batches* tab
  - **Enter** the new batch number into the text field
  - If the batch number exists or has already existed, you will be alerted.
  - Press the **Create** button to save the new batch number to the system
  - Press the **Back** button if you don't want to add anything.



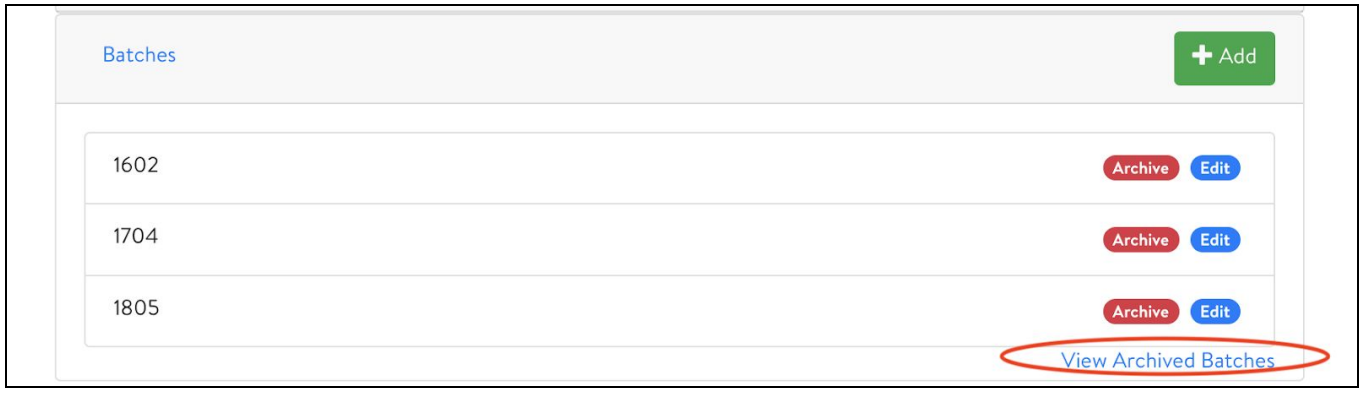
- Edit a batch
  - Click on the ***Batches* tab** to open up the accordion
  - Press the **Edit** button next to a batch number to edit an existing batch
  - You will be **redirected** to a page where this batch number can be changed
  - Once you have made the necessary edits press the **Save** button
  - Press the **Back** button if you don't want to change anything.



- Archive a batch
    - Click on the ***Batches* tab** to open up the accordion
    - Press the **Archive** button next to a batch number to archive an existing batch ID
    - You will be alerted by the system if the Archive is successful



- Unarchive a batch
    - Click on the ***Batches* tab** to open up the accordion
    - Press the **View Archived Issues** at the bottom of the accordion
    - You will be **redirected** to a page displaying a list of archived batches
    - Press the **Activate** button for a process if you want to unarchive this process
    - You will be **redirected** to the previous page with a **confirmation** message if the the unarchive was successful
    - Press the **Back** button if you don't want to change anything.

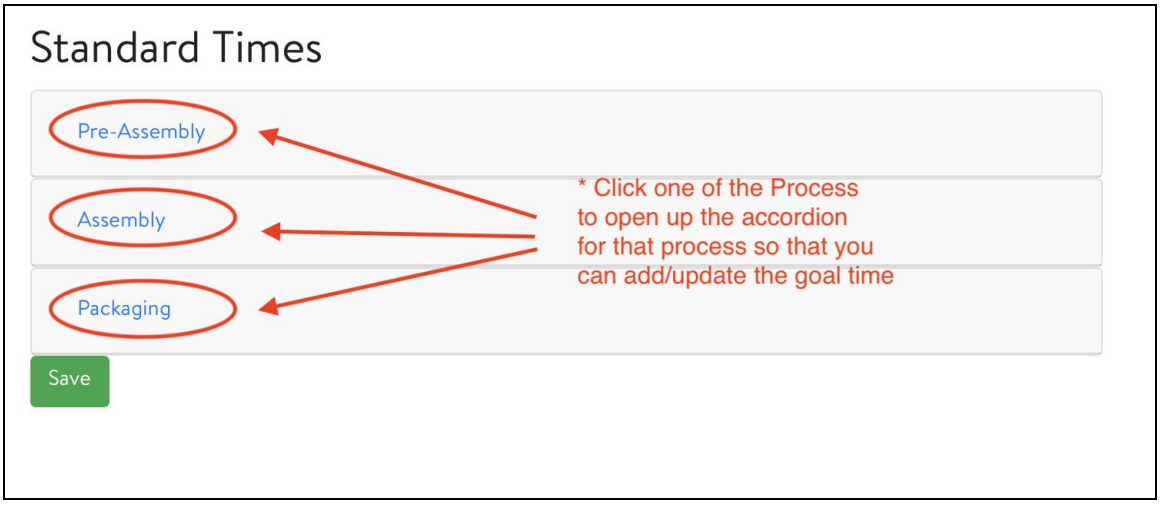


(2) Edit Standards

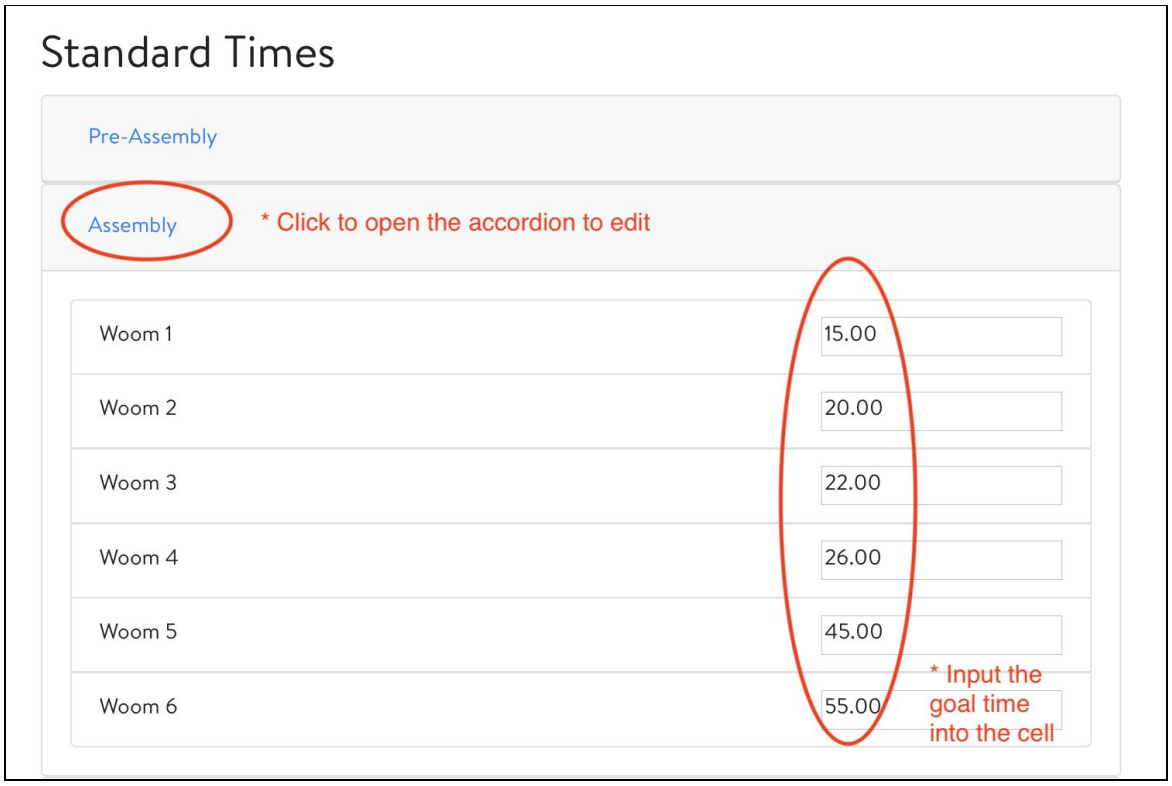
This screen allows management to set standard times or goal times for each process to be completed. These numbers will be used in reports to quantify the efficiency of each worker and the overall system as well as help determine the system capacity.

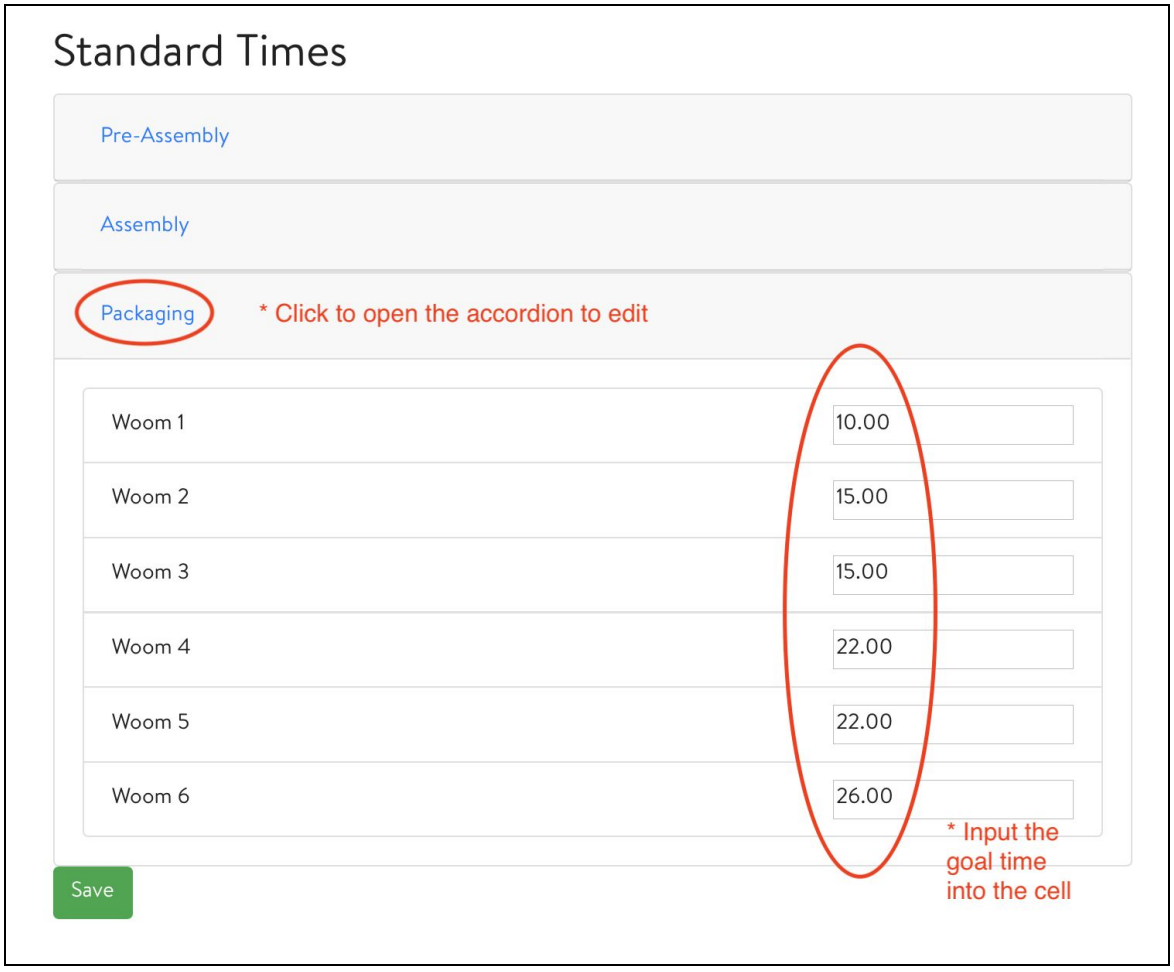
Standard Times

1. Select the production Process first, then select the bike models



2. Add or Edit the standard time and input it into the cell next to the process selected


Standard Times
Pre-Assembly
Assembly
* Click to open the accordion to edit
Woom 1
15.00
Woom 2
20.00
Woom 3
22.00
Woom 4
26.00
Woom 5
45.00
Woom 6
55.00
* Input the goal time into the cell


Standard Times
Pre-Assembly
Assembly
Packaging
* Click to open the accordion to edit
Woom 1
10.00
Woom 2
15.00
Woom 3
15.00
Woom 4
22.00
Woom 5
22.00
Woom 6
26.00
* Input the goal time into the cell
Save

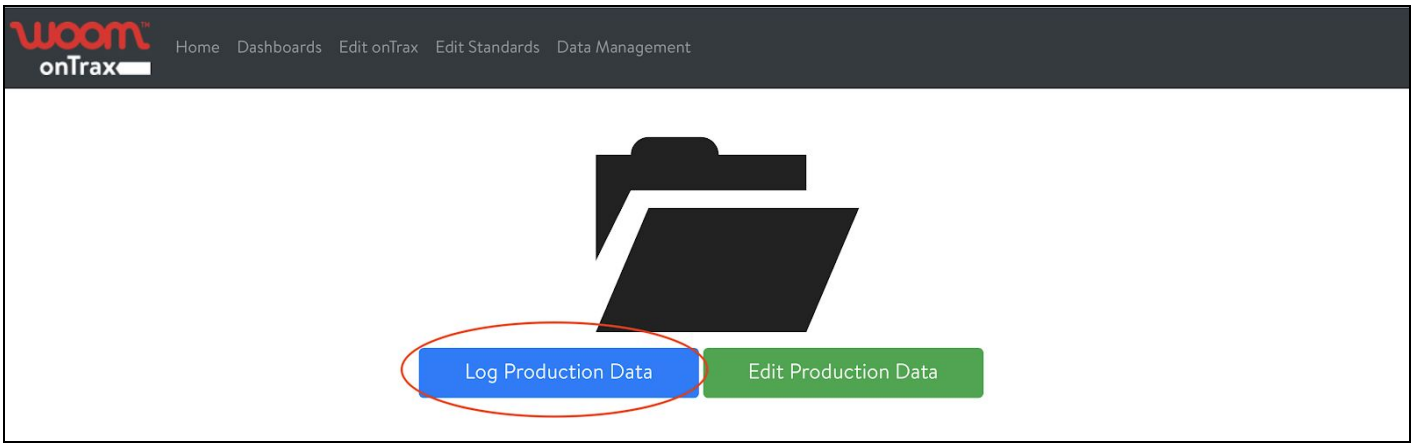
2.1.3 Data Entry Specialist QRG

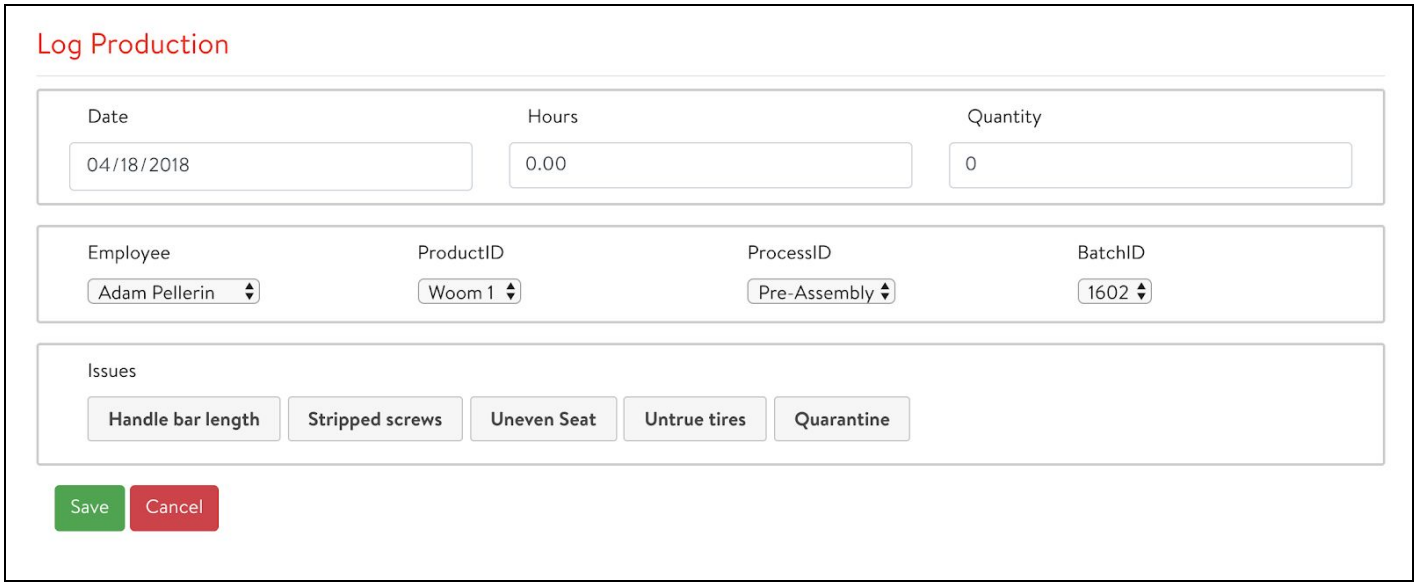
(1) Data Management - Manual Access

This portal has two functions: (1) Allow production data to be logged to the database manually if there is ever a problem with the technician portal (2) Allow access to view, modify, and delete records in the database if there are mistakes.

1 - Manually Uploading Production Data

1) Production paper forms should be used by technicians when there is system downtime.
2) Navigate to the Data Management portal, and click **Log Production Data** (Link: http://woomontrax.azurewebsites.net/Admin/Data/Log)
3) For **each** production record, select/input date, hours, quantity, employee, product, process, batch, and issues. Press **Save** to log the record to the database.
4) Press the **Cancel** button if you want to cancel your action and go back to the main page of Data Management.
5) If you input your data wrong, use **Edit Production Data** to edit the record.

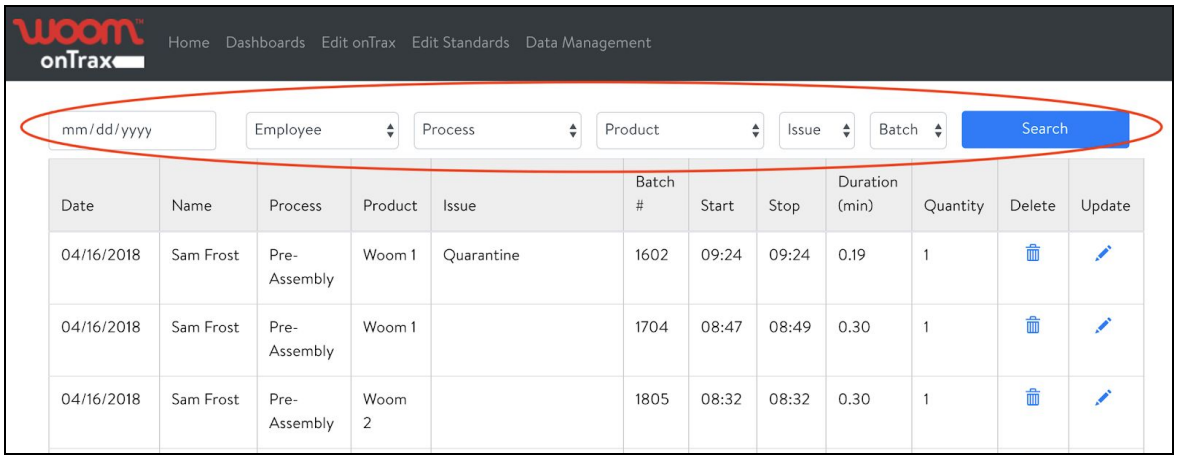




2 - Edit Production Data

1) Search production records:

To quickly find the records you need, use the **Search** function. Try to limit your search results by selecting the fields first and then press **Search**. You can search on **Date**, **Employee**, **Process**, **Product**, **Issue** and **Batch** so that only the record(s) relevant to your selection will show up in the list of production records below.



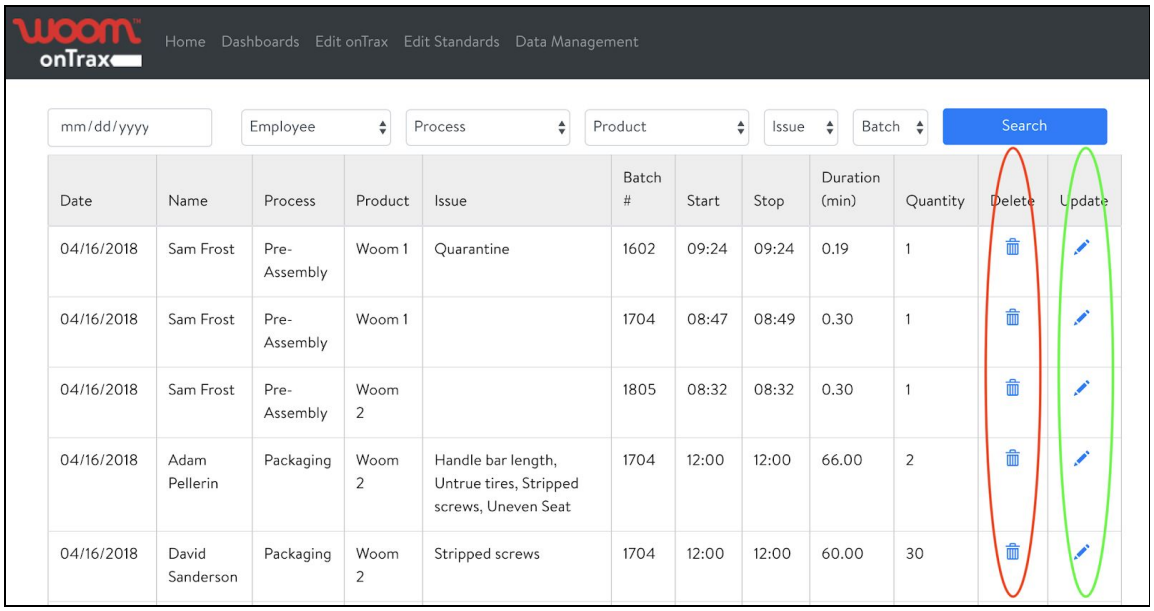
Date	Name	Process	Product	Issue	Batch #	Start	Stop	Duration (min)	Quantity	Delete	Update
04/16/2018	Sam Frost	Pre-Assembly	Woom 1	Quarantine	1602	09:24	09:24	0.19	1		
04/16/2018	Sam Frost	Pre-Assembly	Woom 1		1704	08:47	08:49	0.30	1		
04/16/2018	Sam Frost	Pre-Assembly	Woom 2		1805	08:32	08:32	0.30	1		

2) Edit production records:

If you need to make changes to your records manually, you should first do a Search to quickly access the records you want.

(1) Delete records: Press the **Trash Icon** button in a record to delete this record and confirm that you want to delete this record by clicking **OK** on the pop up message

(2) Update records: Press the **Pencil Icon** next to the record you want to update.You should only do this when the production data is not accurate. Duration, Quantity, Employee, Product, Process, Batch and Issues can all be updated. Press the **Save** once you finish modifying a record. The database will be updated automatically.



Date	Name	Process	Product	Issue	Batch #	Start	Stop	Duration (min)	Quantity	Delete	Update
04/16/2018	Sam Frost	Pre-Assembly	Woom 1	Quarantine	1602	09:24	09:24	0.19	1		
04/16/2018	Sam Frost	Pre-Assembly	Woom 1		1704	08:47	08:49	0.30	1		
04/16/2018	Sam Frost	Pre-Assembly	Woom 2		1805	08:32	08:32	0.30	1		
04/16/2018	Adam Pellerin	Packaging	Woom 2	Handle bar length, Untrue tires, Stripped screws, Uneven Seat	1704	12:00	12:00	66.00	2		
04/16/2018	David Sanderson	Packaging	Woom 2	Stripped screws	1704	12:00	12:00	60.00	30		

(2) Dashboard - Reporting Function

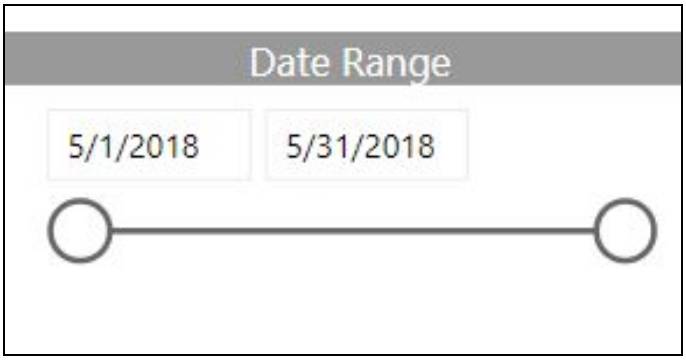
1 - Date Slicer Function

The **Slicer** Visualization in Power BI is used to built filter that you can put on dashboard. Two Date Slicers are built almost for each of the dashboard. They are essentially the Date filters, and one of them is named as **Date Selector** while the other is named as **Date Range**.

What is extremely important for them is that your selection in **Date Selector** will limit your selection in **Date Range**.

1) **Date Selector** is useful because it makes the dashboard to always display the newest data for this month, for this week, or for today depend on your selection.

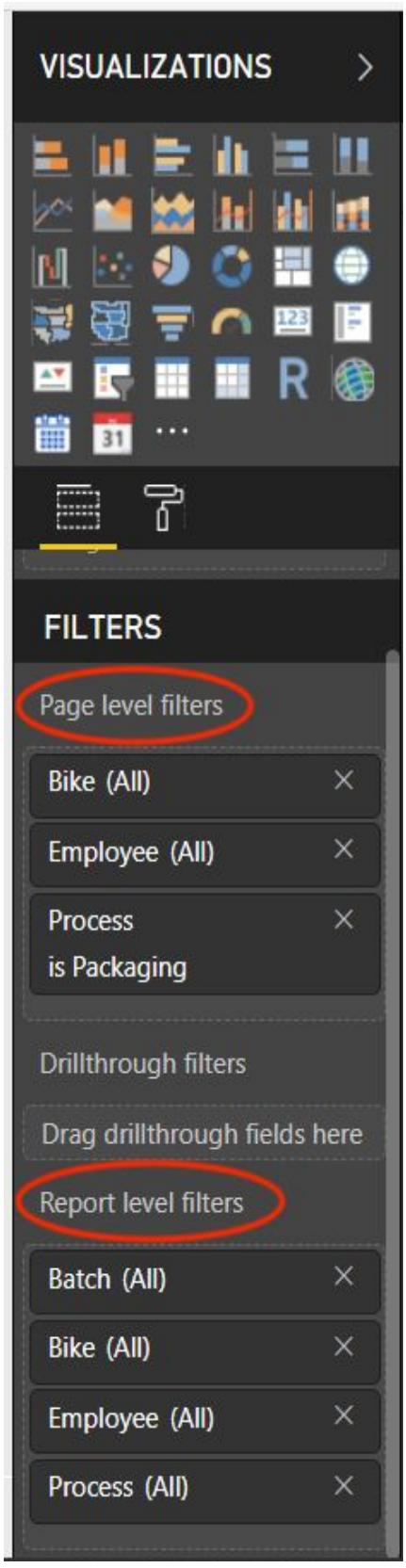
2) **Date Range** provide you with more freedom in filtering your data by a time range, but your selection in this slicer will be limited by **Date Selector**. You won't be able to select a date that is out of the range from your selection in **Date Selector**. If you decide that you want to see a specific day or time range that is a long time ago, try to choose **This Year or Last 3 Years** for **Date Selector**, and then select the specific day or time range in **Date Range**.



Essentially, whenever you use **Date Range**, you want to have your selection in **Date Selector** include the date that will be selected in **Date Range.**

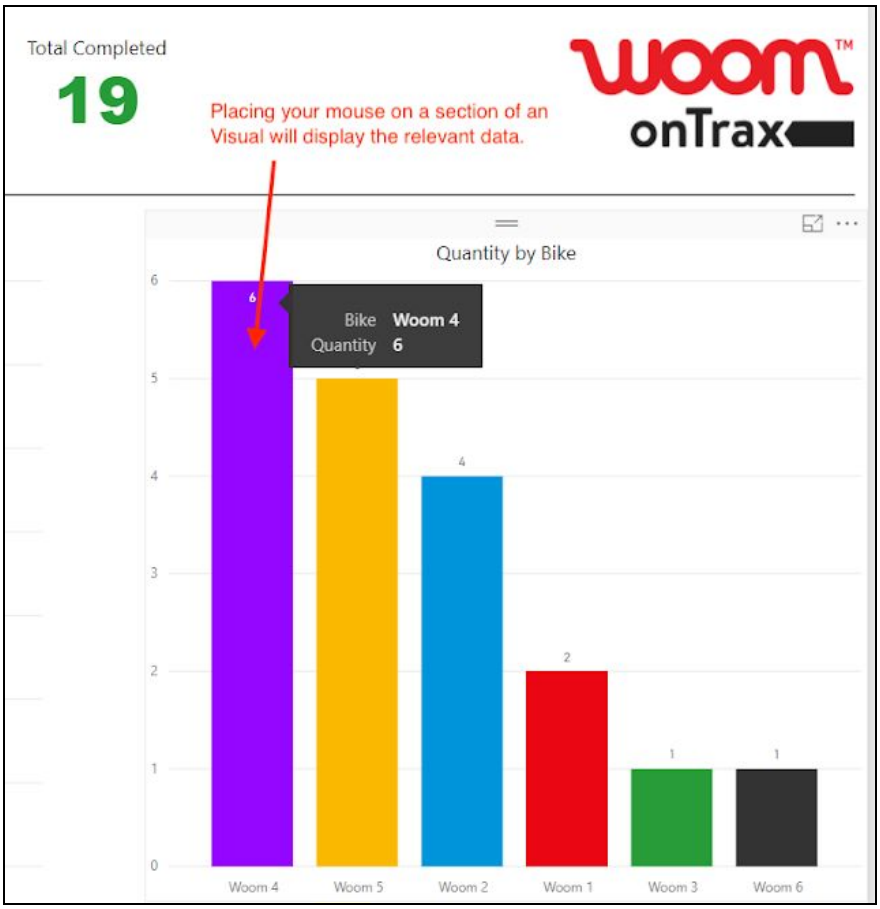
2 - Filters Function

1) **Page Level Filters** applies to all the Visuals on the current report page. Some pages, such as the Bikes Completed report has filter applied for Process to limit the data only for bike produced. You can utilize the filter in **Page Level Filters** to quickly access the data you want.
2) **Report Level Filters** applies to all pages in the report. Essentially, changing the Report Level Filters will change you whole files.
3) For more information related to Filters, click the following link https://docs.microsoft.com/en-us/power-bi/power-bi-report-add-filter . Or google Power BI filters.

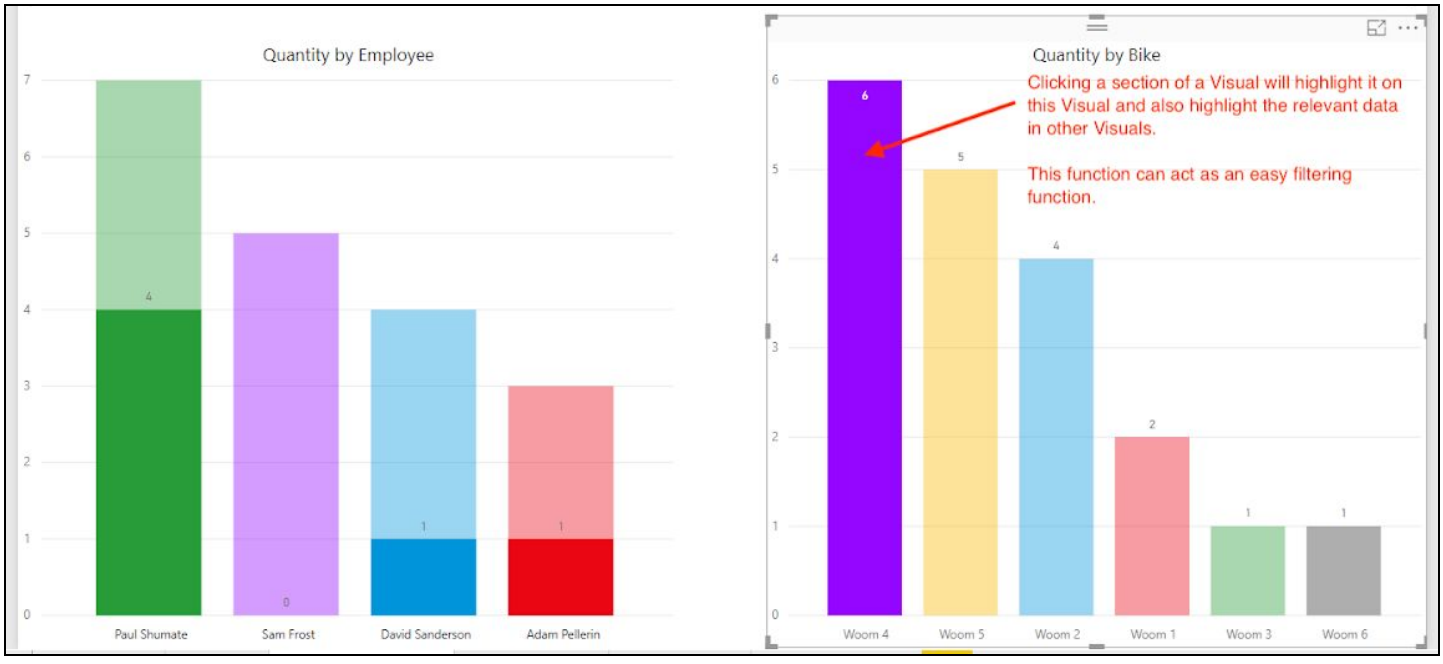


3 - Interaction With the Visualizations

1) "Touch" a Visualization
   a) Place your mouse to display data: Placing your mouse on a section of an Visual will display the relevant data.

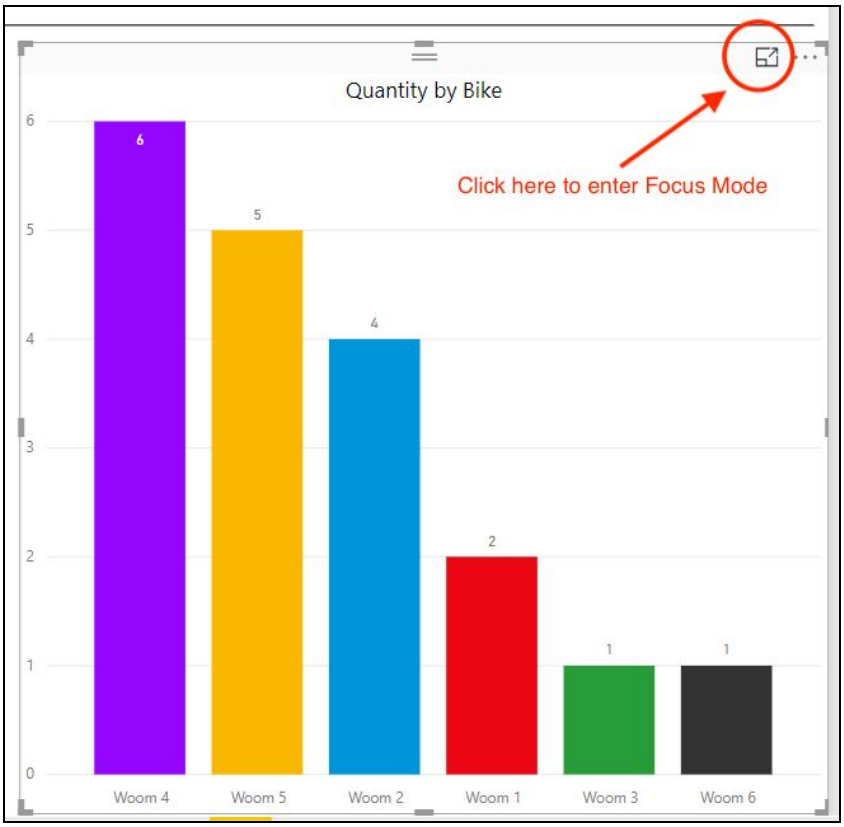


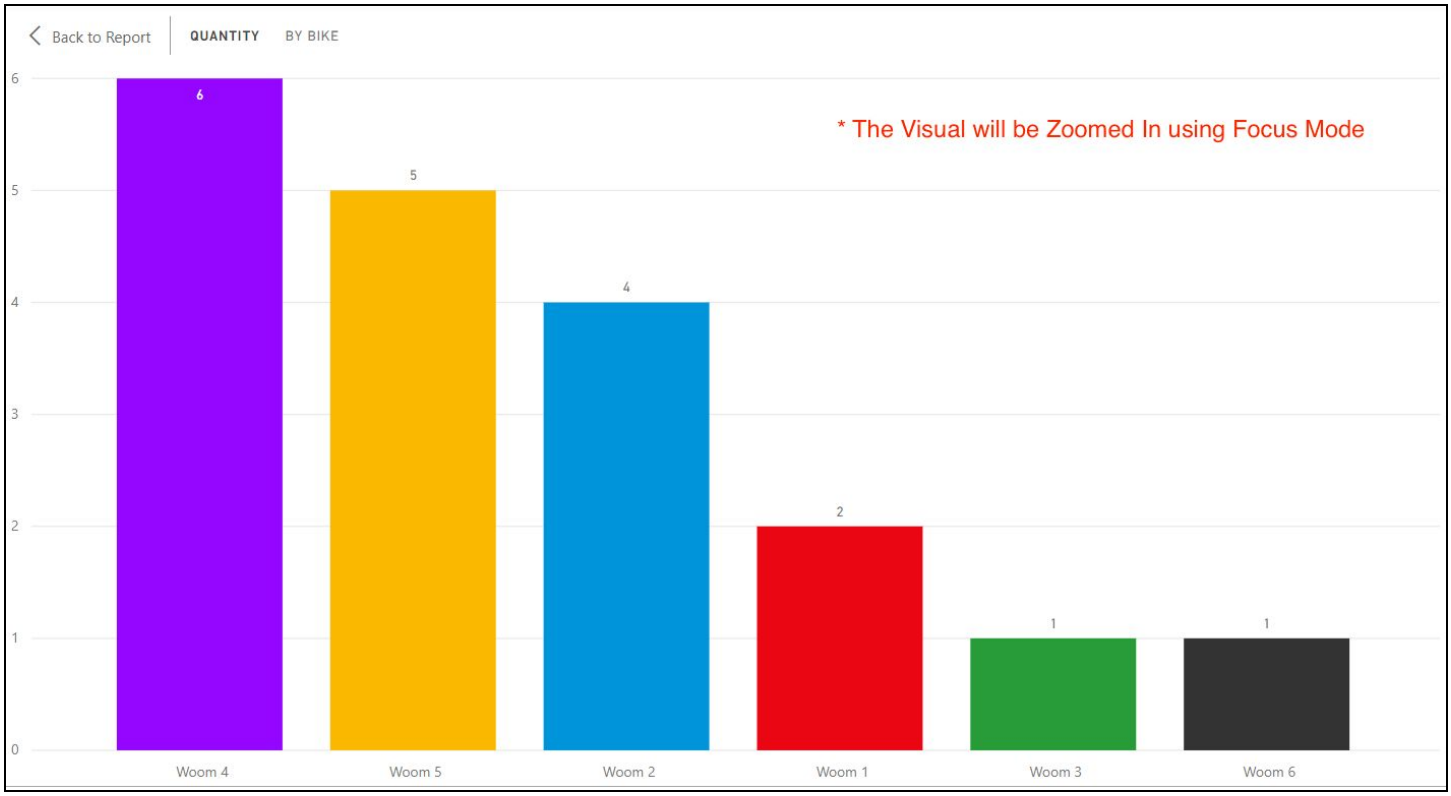
   b) Click to highlight: Clicking a section of a Visual will highlight it on this Visual and also highlight the relevant data in other Visuals. This function can act as an easy filtering function.



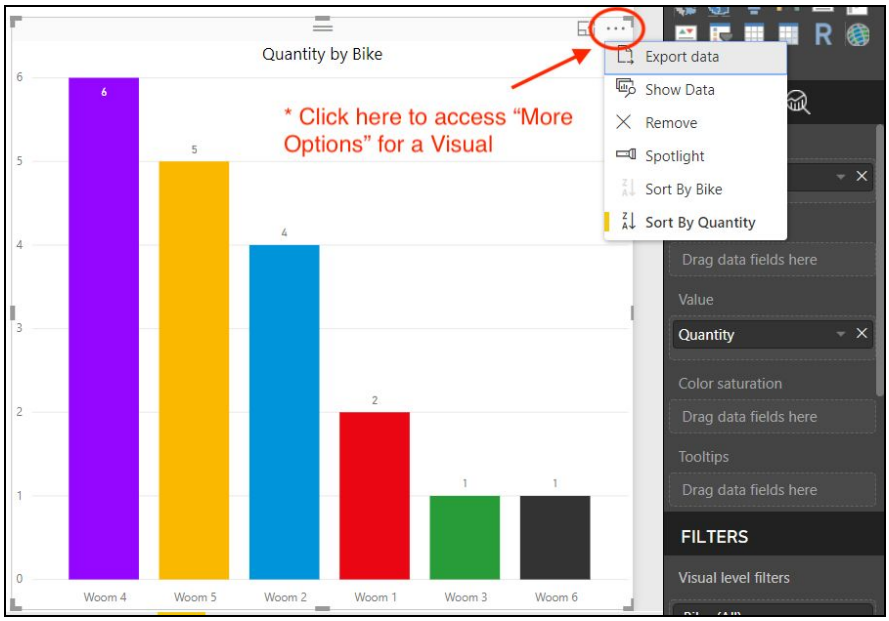
2) Focus Mode:

Focus Mode lets you expand (pop out) content to see more detail. While in focus mode, you can view and modify filters that were applied when this Visual was created. (For more information: https://docs.microsoft.com/en-us/power-bi/service-focus-mode)



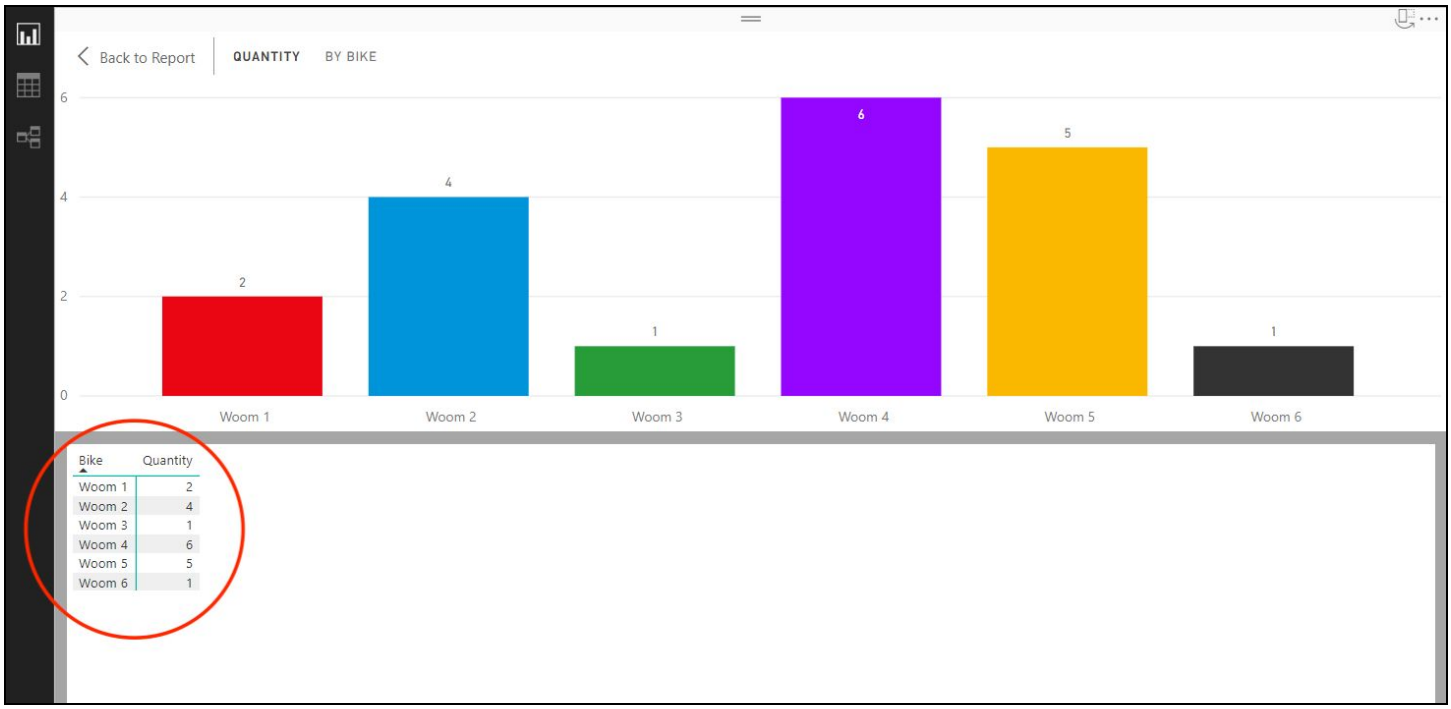


3) More Options Button



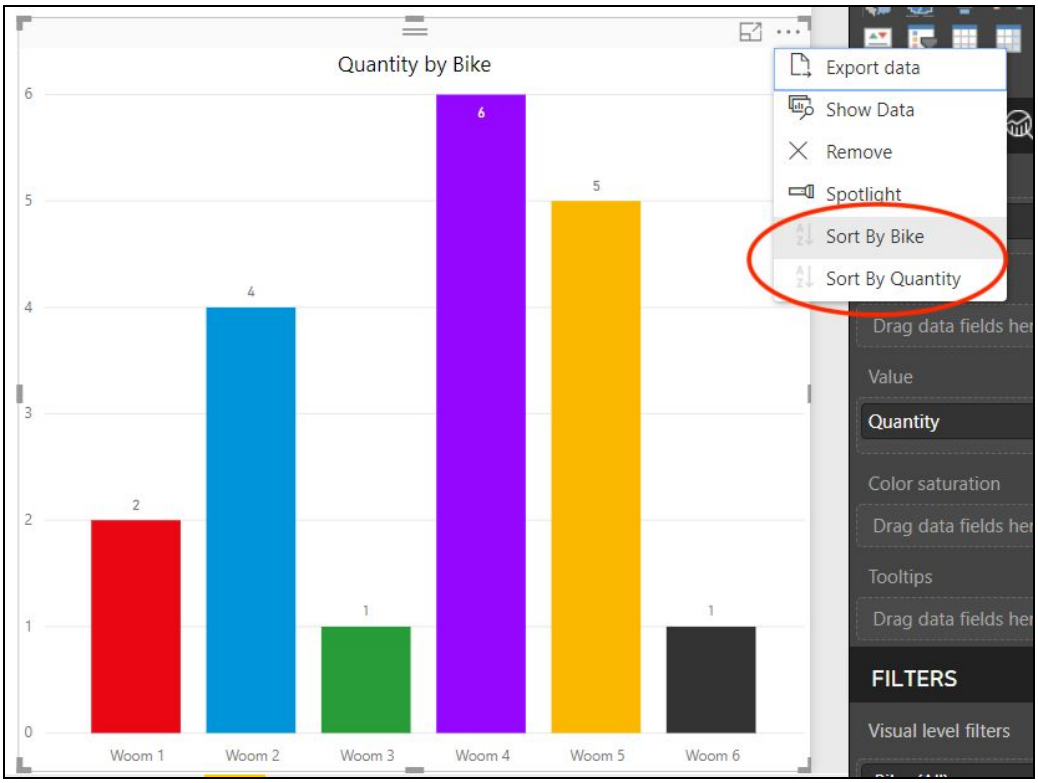
a) Export Data:
This selection in **More Options** will export the data for this Visual into a data sheet that can be opened in Excel.

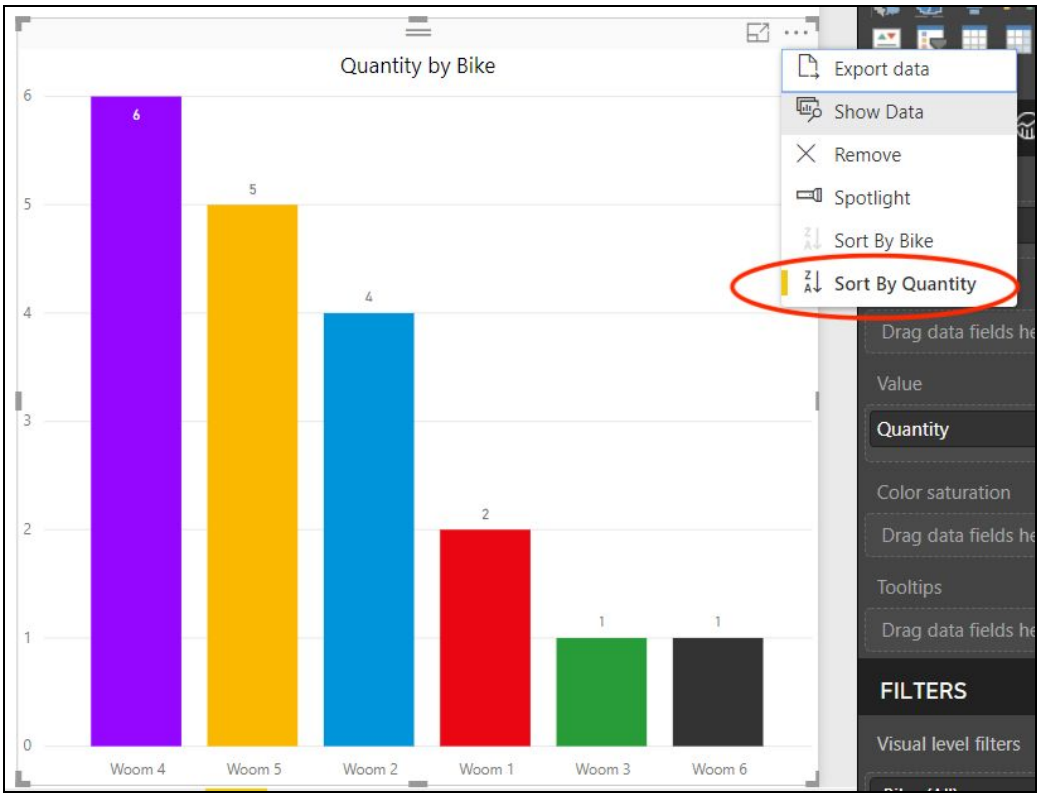
b) Show a Data Table:
Show Data selection in **More Options** will Zoom in the Visual and display the data table under the Visual.



c) Sort the Charts:

The available sorting option will be different for different Visuals. Use the Sort function in **More Options** to arrange how the sections are displayed for a Visual. The second example below is from Sort By Quantity.

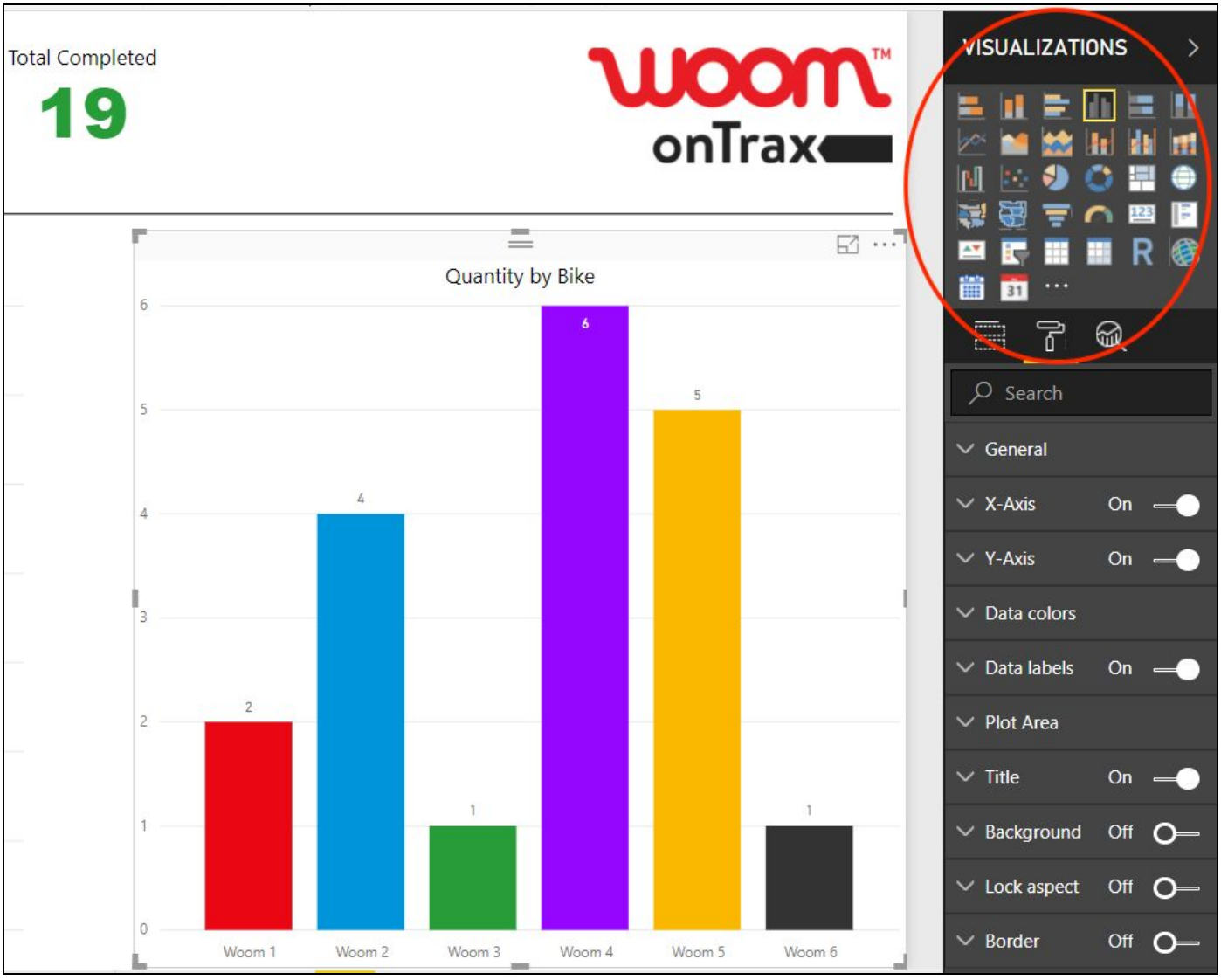




4) Transforming Existing Visualization:

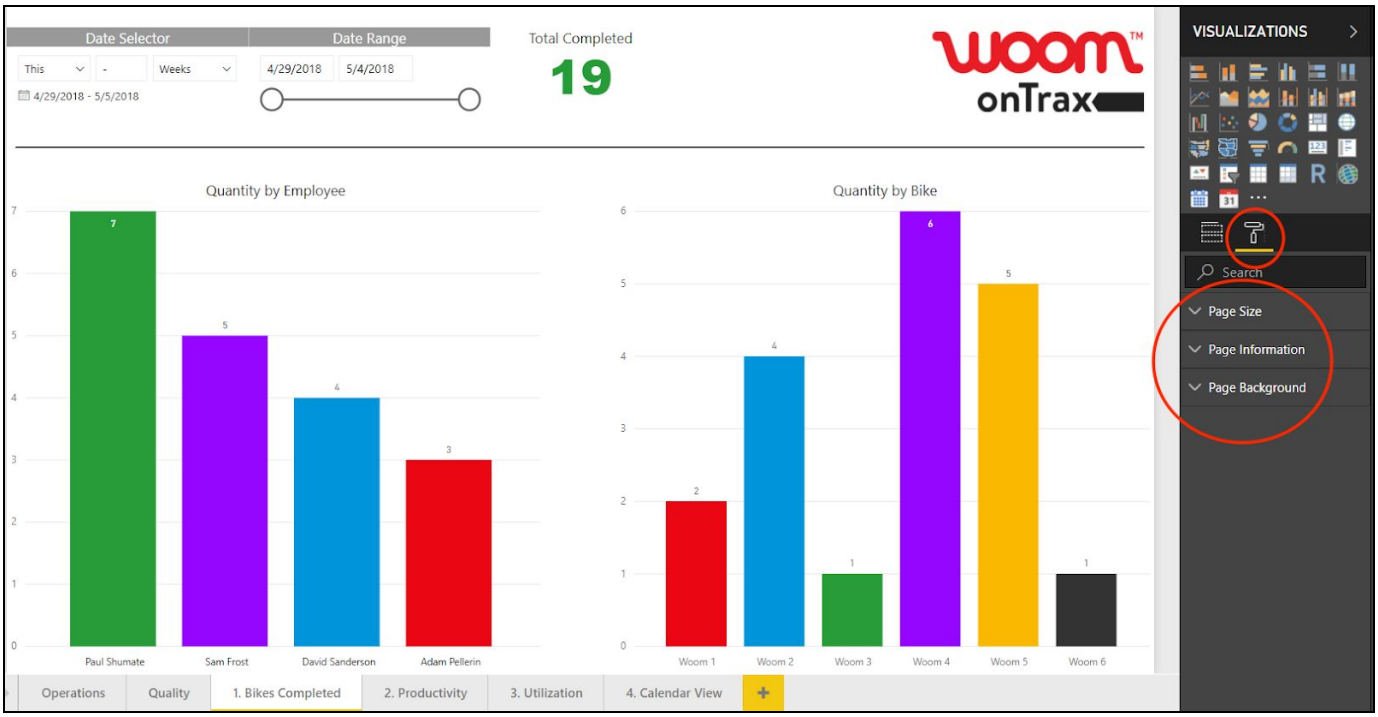
Select the Visual you want to transform, then choose other Visualization Types in the Visualization Section highlighted below. The Visual will immediately transformed to another type of Visual after you make your selection. But you might need to resize and reformat it.

* Best practice for making new dashboard: Copy and Paste the existing Visuals that you can transform for new usage, then transform it into another type of Visuals.

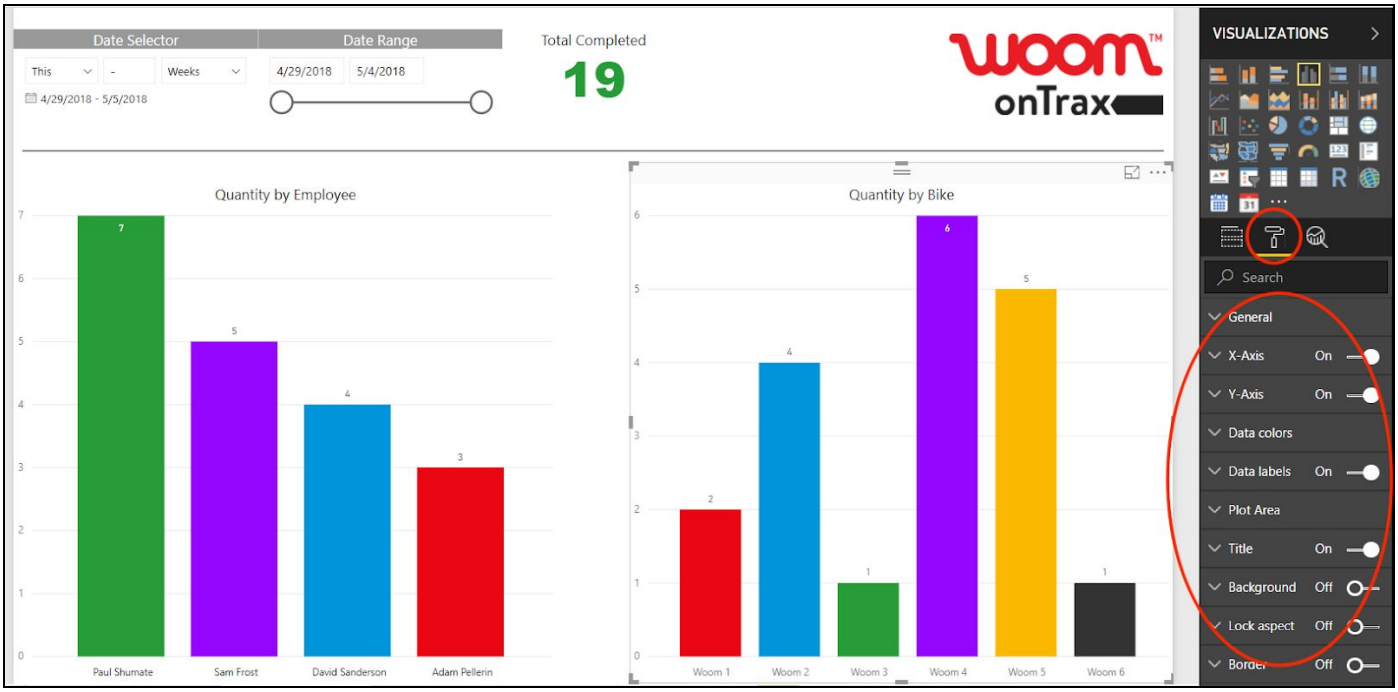


4 - Format

1) Format the Page:
   This button only show up and works when you have **not** selected (or click on) any Visual on your current page.



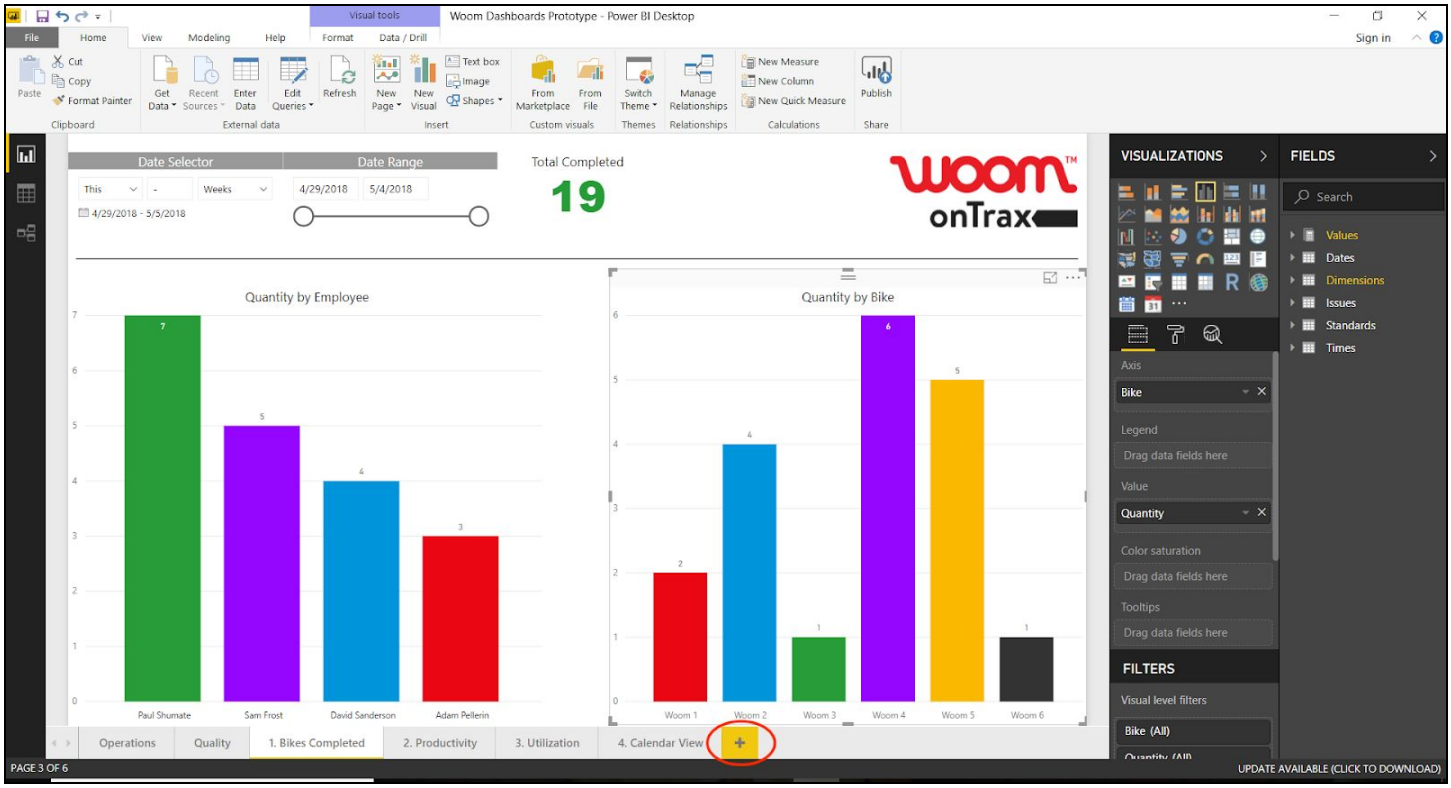
2) Format the Visualization:
   This button only works when you have selected (or clicked on) a Visual that you want to format on your current page. The format options available will be different based on the kind of your Visual. The example below have selected the Quantity by Bike Visual, so that format on the right will only affect this Visual.



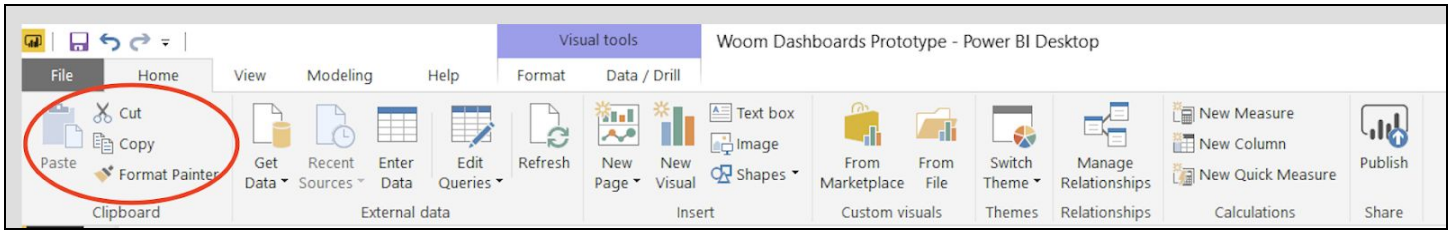
5 - Build New Dashboard

1) Add a New Page:

   When you want to make make dashboard, you should add a new page first. Use the "+" button at the button next to all the individual pages listed to add a new page.



2) Some suggestion: Try to utilize the **Copy** and **Paste** function to copy some existing Visuals and change them to other type of Visuals in your new dashboard. This will save you a lot of time. Please refer to 3 - Interaction With the Visualizations, (4) Transforming Existing Visualization.



5 - Other Useful Links

1) Power BI official training website: https://powerbi.microsoft.com/en-us/learning/
2) A Popular course from edX: https://www.edx.org/course/analyzing-and-visualizing-data-with-power-bi
3) Official Power BI documentation (https://docs.microsoft.com/en-us/power-bi/)

(3) Restricting IP Address

Restrict SQL Server and Web App access by IP address

- Make note of your current **external IP address**
    - Your current **external IP address** can be found by searching for "What is my IP" on *Google.com*

- Configure SQL Firewall settings
    - Press **SQL databases** link on *Resources Pane* located on the far left the pane
    - Choose appropriate SQL server **instance name** from *SQL Databases* pane
    - Click **'Set Server Firewall'** link in *Instance* pane
    - If adding current IP address
        - Click "Add client IP" link within the *Firewall Settings* pane
    - If adding other IP address
        - Type descriptive **Rule Name**
        - Input appropriate **Start IP** and **End IP** range
            - If one IP
                - Start and End IP are the same
            - If range of IPs
                - Start IP is the lower limit of IP range
                - End IP is the upper limit of IP range
    - Click **Save** button

- Enable Web App IP Access Restriction
    - Press **App Services** link on *Resources Pane* located on the far left the pane
    - Choose appropriate App **name** from *App Services pane*
    - Select **Networking** from the *App Resources* pane
    - Select **Configure IP Restrictions** from within the *Networking* pane
    - Click **Add rule** button
    - Input appropriate IP address to restrict app access to
    - Subnet Mask may be ignored
    - Click **Add Rule** button

- Remove Web App IP Access Restriction
    - Press **App Services** link on *Resources Pane* located on the far left the pane
    - Choose appropriate App **name** from *App Services pane*
    - Select **Networking** from the *App Resources* pane
    - Select **Configure IP Restrictions** from within the *Networking* pane
    - Select the ellipsis associated with the IP access you're removing
    - Click **Remove**
    - Confirm by clicking **Yes**

2.2 Training Plan and Instruction

2.2.1 New Technician Training

We suggest the production manager conduct the training for the technicians. The following should be covered in new technician training:

1. Setting up your PIN and signing in
    a. Every employee needs a unique PIN. They can be as long or as short as the employee wants.
2. How to log a production run along the happy path
    a. Always select the Process, Product, Batch and quantity you are working on
    b. Press Start to begin and Complete to end. It'll count the number of bikes per employee per session on the screen
3. Selecting Product, Process, and Batch, and what each means
    a. Pre-Assembly → Technicians may want to make more than one of these at a time. **Be sure to check and adjust quantity.**
    b. Assembly
    c. Packaging
4. Selecting quantity and having a set quantity → Meeting production goals
    a. The production manager will set daily production goals for each technician and bike model
5. Flagging and understanding errors → Why flag?
    a. Flagging improves bike tracking and quality control
    b. Always flag the issues as you encounter them. Don't use the Pause button for this purpose.
    c. Solve the issue if you can, or contact a technician/production manager who can
    d. If the issue is severe, select any issue(s) the bike has, and select the Quarantine option. Set the bike aside and press the Complete button to log the quarantined bike. Alert the production manager to the quarantined bike.
    e. Start on a new bike
6. Using pause and taking breaks
    a. Use the Pause button for infrequent breaks, such as those to the restroom or for unscheduled meetings. Avoid using Pause for longer or scheduled breaks, such as lunch

2.2.2 New Production Manager Training

- Be familiar with the technician portal so that you can conduct proper training for technicians

- Be familiar on how to manage the production portal using Edit onTrax:
    a. Employees
        - Clicking on Employees shows the current employees who can sign into the system via the technician portal
        - Know how to Edit an employee entry
        - Know how to archive an employee. This saves the employee and their data for historical reporting purposes. Archiving them takes them out of the production portal
        - Know how to Add a new employee. They must have a unique PIN.

    b. Products
        - Clicking on Products shows the current products technicians can select from in the technician portal
        - Know how to add a new product
        - Know how to edit a product
        - Know how to archive a product. This saves the product and its data for historical reporting purposes. Archiving it takes it out of the production portal

    c. Processes
        - Clicking on Processes shows the current processes technicians can select from in the technician portal
        - Know how to add a process
        - Know how to edit a process
        - Know how to select issues for each process. Selecting an issue for a process (e.g. Pre-Assembly) makes **only** the **selected issues** available to technicians when they flag a bike that is in a specific process
        - Know how to archive a process. This saves the process and its data for historical reporting purposes. Archiving it takes it out of the production portal

    d. Issues
        - Clicking on Issues shows the current issues technicians can select from in the technician portal. Issues will be displayed to technicians based on the process (e.g. Pre-Assembly) they have selected (see Processes above)
        - Know how to add an issue
        - Know how to edit an issue
        - Know how to archive an issue. This saves the issue and its data for historical reporting purposes. Archiving it takes it out of the production portal

e. Batches
    - Clicking on Batches shows the current batches technicians can select from in the technician portal
    - Know how to add a batch ID
    - Know how to edit a batch ID
    - Know how to archive a batch ID. This saves the batch ID and its data for historical reporting purposes. Archiving it takes it out of the production portal

The production manager will have access to a reporting dashboard. It uses Microsoft Power BI. The production manager will be able to select from a variety of attributes like Employee, Bike Model, and Date to view reporting metrics that meet their specifications. The dashboard will show overall trends and outliers.xxz

2.2.3 New Data Entry Specialist Training

- Be familiar with technician portal process so that you understand the data you are logging/viewing

- Be familiar on how to log production data using onTrax Data Management
    - Be familiar with the Log Production interface
    - Know that the data of Date field, Hours field, and Quantity field can be filled in either using selection or keyboard typing.
    - Understand the differences in process phases (e.g. Pre-Assembly)
    - Understand issues the technicians can flag. Understand what selecting Quarantine means for a production entry

- Be familiar on how to search and manage production record using onTrax Data Management
    - Understand that each page will only load a maximum of 25 production records at a time
    - Know how to search for production entries by date
    - Know how to search for production entries by employee
    - Know how to search for production entries by process, product, issue, and batch
    - Know how to update and/or delete record in case of any errors with the data