



Plant Connect

Production Data Anywhere

PLANT CONNECT WEBSITE QUICKSTART GUIDE

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1. Introduction

The Plant Connect system allows the user to remotely monitor multiple Belt-Way conveyor belt scales over the Internet. The scale network may be wireless or hardwired. Internet access can come from a Broadband Local Area Network connection or Cellular Data Network (Verizon, AT&T, etc.).

The website is best viewed in Google Chrome. It be downloaded for free at www.google.com/chrome.

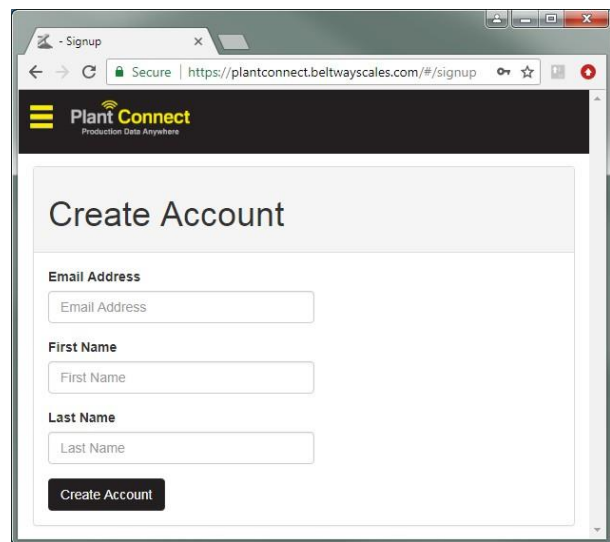
The Plant Connect address is <https://plantconnect.beltwayscales.com>

2. Create a User Account and Login

A user account is required to access scale data. Each customer may have an unlimited number of users.

A. Click **Create Account**.

Fill in the email address, first name and last name fields and click **Create Account**.

A screenshot of a web browser showing the 'Create Account' page on the Plant Connect website. The page has a dark header with the 'Plant Connect' logo and tagline 'Production Data Anywhere'. The main content area is white and contains three input fields: 'Email Address', 'First Name', and 'Last Name'. Below these fields is a dark 'Create Account' button. The browser's address bar shows the URL 'https://plantconnect.beltwayscales.com/#/signup'.

B. You will receive a similar email. Click the link to verify your email account.

Complete your Plant Connect Registration

Click here to complete: <https://plantconnect.beltwayscales.com/#/preregister/EED2D-4A6C-A479>

C. Next you will receive a registration email. Click the login link to proceed.

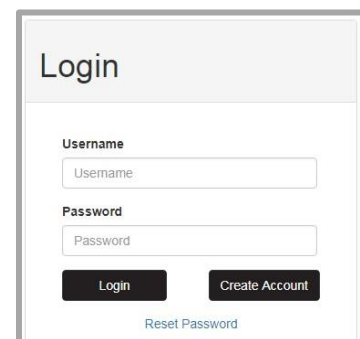
Your Registration is Completed successfully.

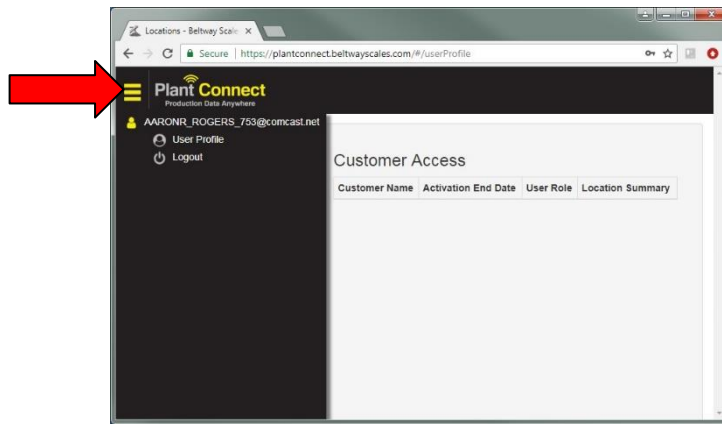
UserId:USER EMAIL

Password: xxxxxxxx

[Click here to login](#)

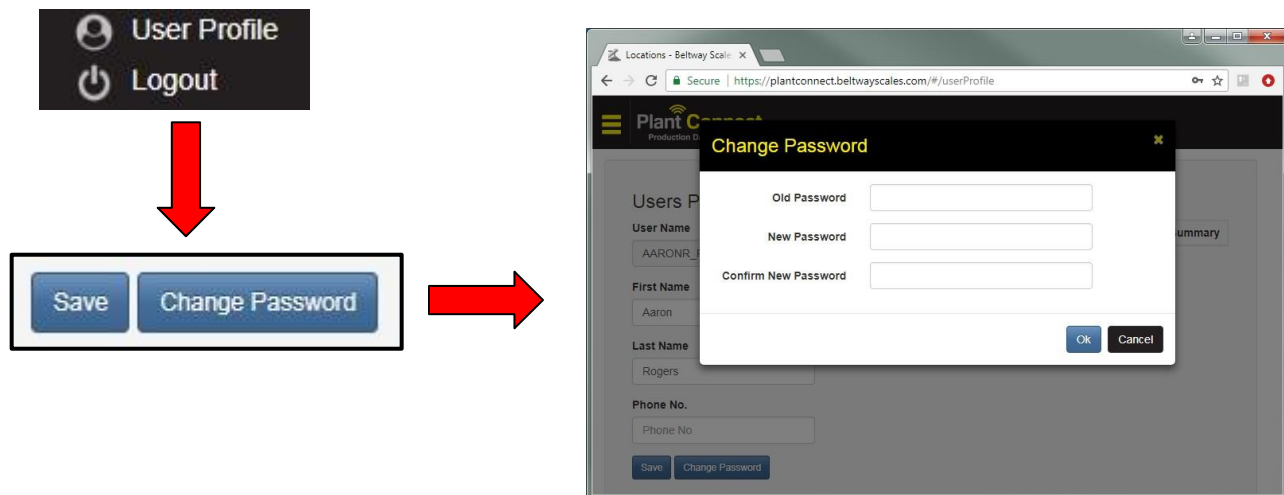
D. Enter your **USERNAME** and the initial **PASSWORD** to login for the first time.

A screenshot of the 'Login' page on the Plant Connect website. The page has a light gray header with the word 'Login'. The main content area is white and contains two input fields: 'Username' and 'Password'. Below these fields are two dark buttons: 'Login' and 'Create Account'. At the bottom of the form is a link that says 'Reset Password'.

E. Click the Main Menu**F. Click User Profile. Enter all your company contact information and click Save.**

Next click **Change Password** to create a memorable password.

The password must be at least 8 characters. It must contain at least one uppercase letter, one lowercase letter, one number and may can contain special characters.

**G. Now you can login with the new password but you will not see any data until a Belt-Way representative connects your user account to your company website.**

This usually takes a few minutes after we receive the confirmation email.

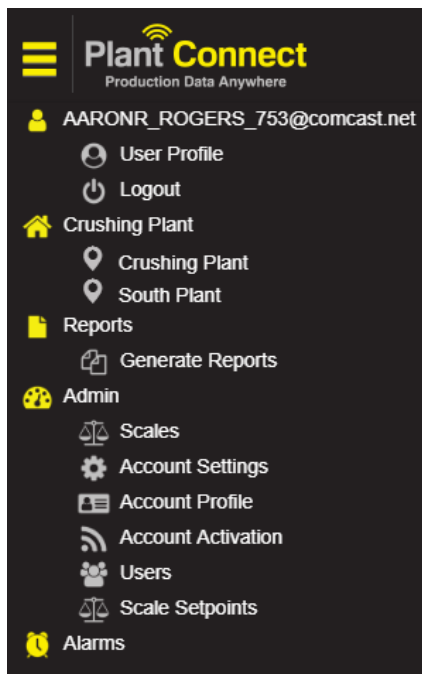
H. The user should also update their contact information in the user profile.

3. Main Menu

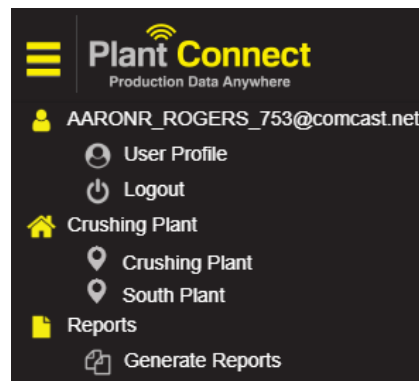
The **Main Menu** allows navigation to all other screens. Menu choices depend on user permissions.



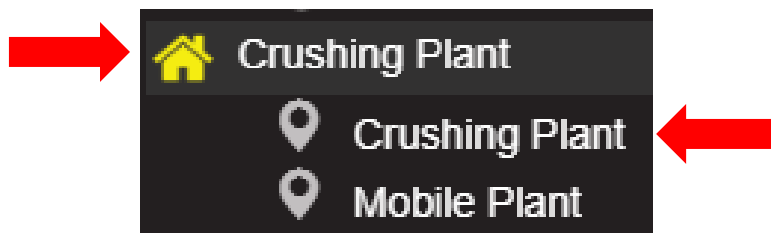
ADMIN Menu



USER Menu



Click **HOME** to view all locations on one screen. Click each location to view one at a time.

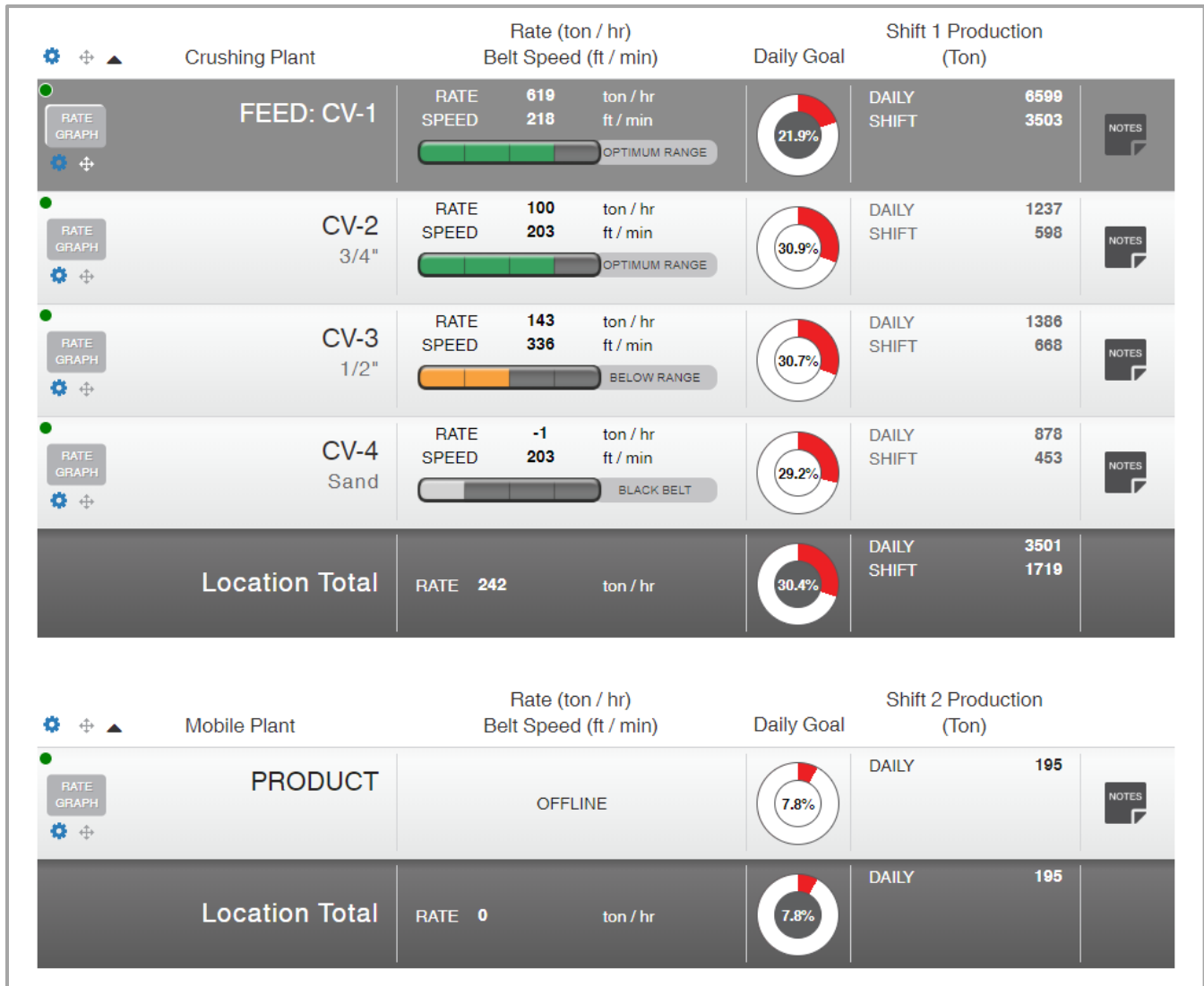


4. Dashboard

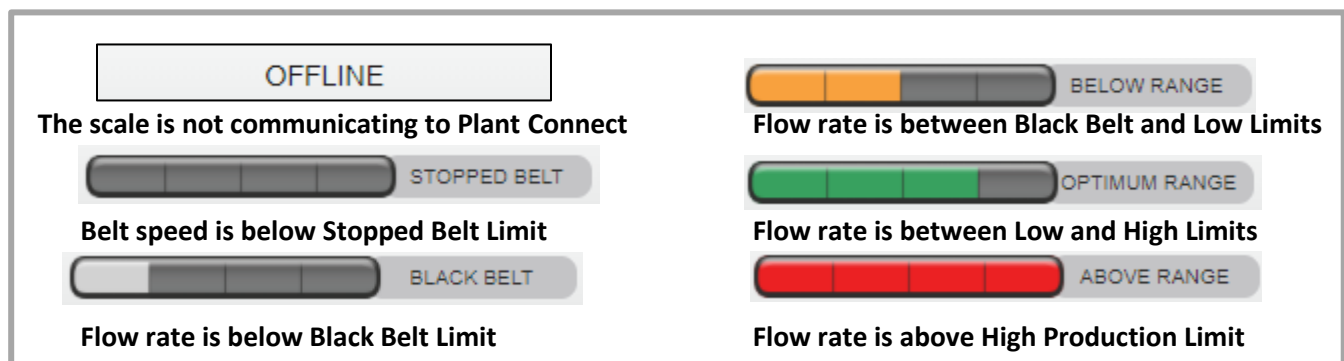
The **Dashboard** shows current readings from all scales reporting to Plant Connect.

The values update once per minute to give the user a near real-time view of production.

ADMIN users may also edit location and scale configuration values from the dashboard.



Each scale will display 1 of 6 possible states.

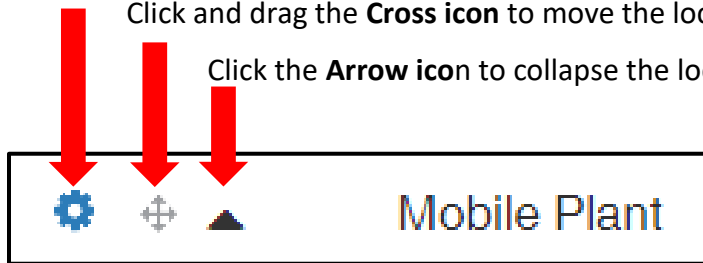


4. Dashboard – Edit Location

Click the **Gear icon** to open the **Edit Location** dialog box.

Click and drag the **Cross icon** to move the location up or down in the dashboard.

Click the **Arrow icon** to collapse the location view.



ADMIN users may modify any **Location** settings:

Location Name, Weight, Rate, Speed units, daily production or shift production goal.

Shift times must be 24-hour time.

00:00-23:59

Enter 00:00 as the start and end time for unused shifts.

The daily total is always shown on the dashboard.

Click a total check box to view additional totals:

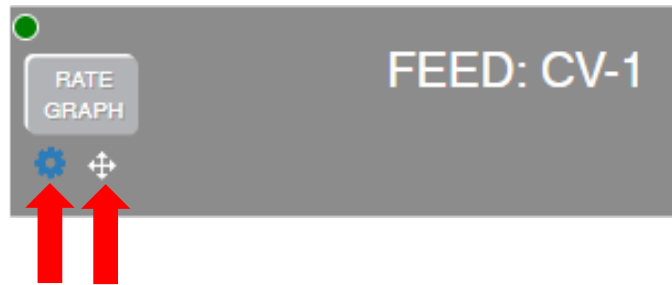
Shift Total (Current shift total)

Job Total (Independent manually resettable total)

Scale Total (Total on the main screen of the scale)

A screenshot of the 'Edit Location' dialog box. The title bar is black with 'Edit Location' in yellow text and a close button (X) on the right. The main area has a white background with various settings. Each setting consists of a label on the left and a control on the right. The settings are: Location Name (text input with 'Mobile Plant'), Weight Unit (dropdown menu with 'Tons (English)'), Rate Unit (dropdown menu with 'Tons / Hour'), Speed Unit (dropdown menu with 'Feet / Minute'), Goals Type (dropdown menu with 'Goals by Day'), Shift 1 Start Time (text input with '07:01'), Shift 1 End Time (text input with '15:00'), Shift 2 Start Time (text input with '15:01'), Shift 2 End Time (text input with '23:00'), Shift 3 Start Time (text input with '23:01'), Shift 3 End Time (text input with '07:00'), Show ShiftTotal (checkbox), Show JobTotal (checkbox), and Show ScaleTotal (checkbox). At the bottom right, there are two buttons: 'Ok' (blue) and 'Cancel' (grey).

4. Dashboard – Edit Scale



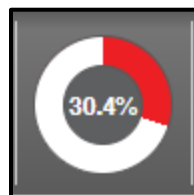
Click and drag the **Cross icon** to move the scale up or down in the location.
Click the **Gear icon** to open the **Edit Scale** dialog box.

A screenshot of the "Edit Scale" dialog box. It has a title bar with "Edit Scale" and a close button. The dialog is divided into two columns of fields. The left column includes: "Conveyor Name" (CV-1), "IP Address" (192.168.001.104), "High Production Limit" (620 ton / hr), "Low Production Limit" (500 ton / hr), "High Belt Speed Limit" (500 ft / min), "Daily Production Goal" (30000 Ton), "Shift 2 Production Goal" (0 Ton), "Feed Scale" (checked), and "Feed Scales" (Crushing Plant (Location)). The right column includes: "Scale Name (optional)" (00:11:27:85:AA:EF), "Modbus Address" (100), "Target Production Rate" (550 ton / hr), "Black Belt Limit" (10 ton / hr), "Stopped Belt Limit" (10 ft / min), "Shift 1 Production Goal" (200 Ton), "Shift 3 Production Goal" (0 Ton), and "Colors List" (Green). At the bottom right are "Save" and "Close" buttons.

ADMIN users may edit any scale settings.

The production limits control when the scale changes state on the dashboard.

The daily or shift goal values control the doughnut % graph on the dashboard



4. Dashboard – Feed Scale Setup

Utilizing a feed scale allows the user to compare the total of a feed conveyor to the sum of multiple product conveyors. Identify a feed scale by checking the box and choosing a color from the Colors List.

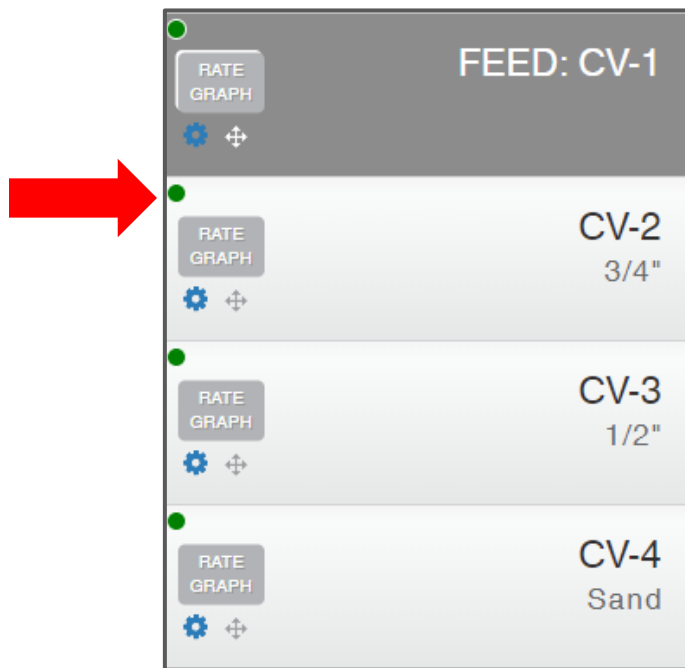
Choose the **FEED** scale and leave the box **UNCHECKED** on secondary and product scales. It is possible to create multiple feed conveyors at a single location.

Feed Scale ☒ Colors List Nothing selected

Feed Scales TSC (Location) Mac Address

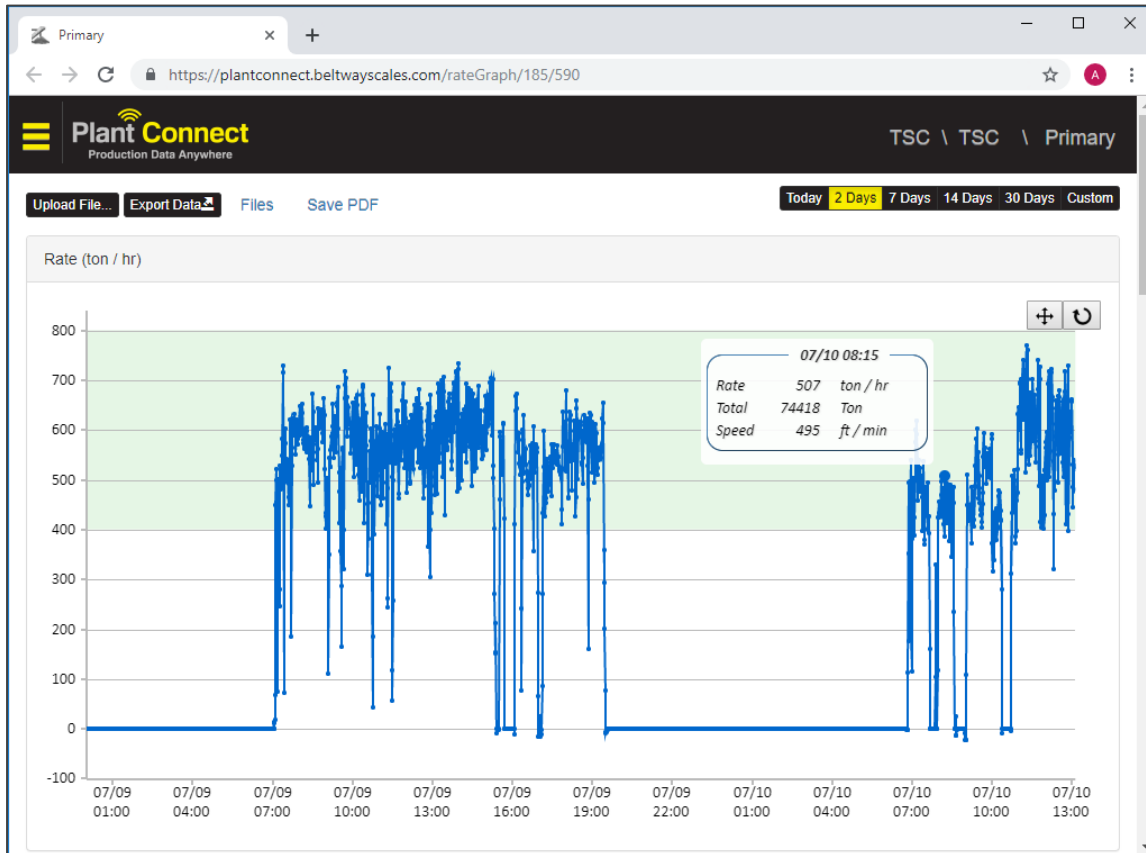
- Black
- Blue
- Green
- Lime
- Magenta
- Maroon
- Pink
- Red
- Yellow
- YellowGreen

The feed scales have a dark gray background and product scales have a light gray background. Each product will show the color associated with the feed scale.

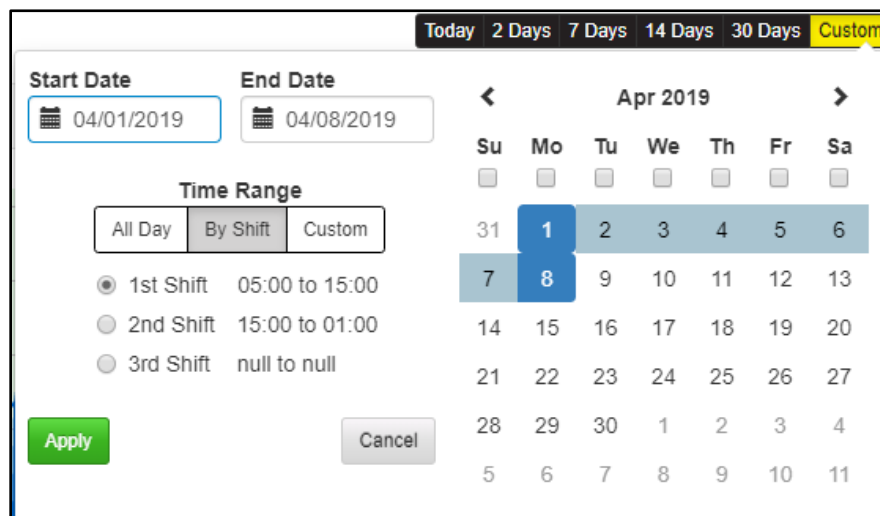


5. Rate and Speed Graph

Click the **RATE GRAPH** button by any scale to view historical flow rate and belt speed data.



Choose a preset range (**Today**, **2 Days**, **7 Days**, **14 Days**, **30 Days**) or click **Custom**.
Use the calendar to select any date range up to 30 days.
Filter time by shift or enter a custom time range. Click **Apply** to generate a new graph.



Today 2 Days 7 Days 14 Days 30 Days Custom

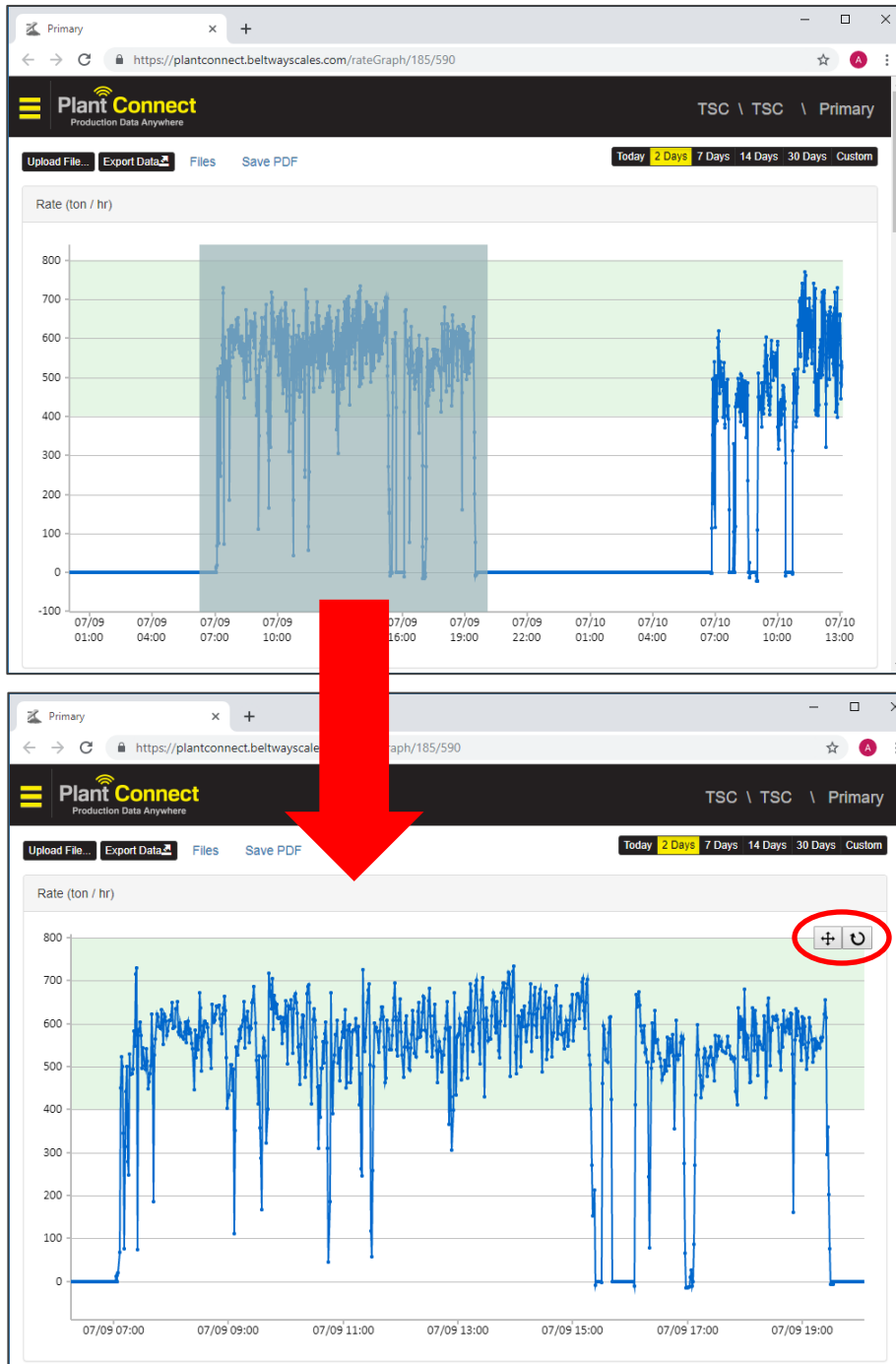
Start Date: 04/01/2019 End Date: 04/08/2019

Time Range: All Day By Shift Custom

1st Shift 05:00 to 15:00
2nd Shift 15:00 to 01:00
3rd Shift null to null

Apply Cancel

Click and drag over any area of the graph to zoom in.



The Zoom toolbar will appear in the upper right corner of the rate graph.

Click the cross icon to switch to **PAN** mode.

Now you can click the graph and drag it left or right.



Click the magnifying glass icon to return exit **PAN** mode.

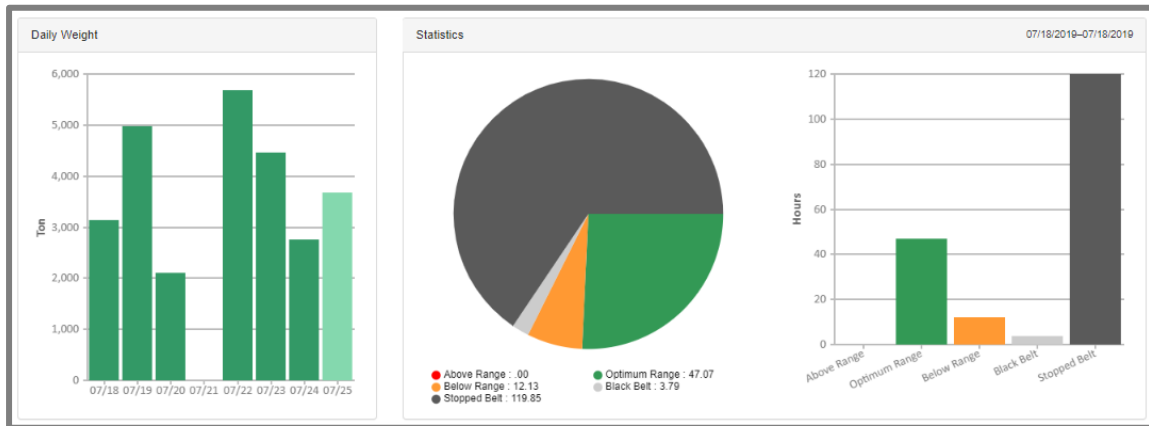
Click the circle arrow icon to **Zoom Out**.



5. Daily Weight and Statistics

The **Daily Weight** shows the accumulated weight for each day.

Statistics shows important details about scale performance.



Start Time - First reading from the scale.

End Time - Last reading from the scale.

Production Today - Accumulated Weight for the day.

Stopped Belt - Time the belt speed is below the **Stopped Belt Speed**.

Black Belt - Time the belt is running but TPH is below the **Black Belt Limit**.

Low Production - Time the belt is running and TPH is above **Black Belt** but below **Low Production Limit**.

Optimal Production - Time the belt is running and TPH is between **Low Production** and **High Production**.

High Production - Time the belt is running with TPH above **High Production Limit**.

Belt Run Time - Total time the belt is running (**Black belt** + **Low** + **Optimal** + **High Production**).

Run Time Ave Rate - Average TPH for belt run time (**Accumulated weight** / **Belt Run Time**).

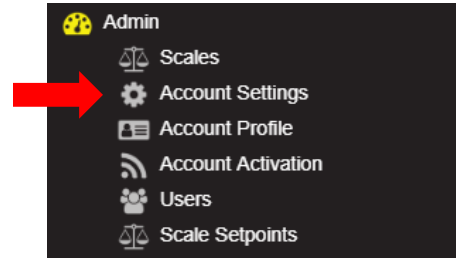
Run + Stopped Time Ave Rate - Average TPH for total time (**Accumulated weight** / **Run + Stopped Time**).

Daily Statistics										
Start DateTime	End DateTime	Production Today (Ton)	Stopped Belt (Hours)	Black Belt (Hours)	Low Production (Hours)	Optimal Production (Hours)	High Production (Hours)	Belt Run Time (Hours)	Run Time Ave Rate (ton / hr)	Run + Stopped Time Ave Rate (ton / hr)
07/19/2019 00:01:00	07/19/2019 23:59:59	4,978	12:38:54	00:42:00	01:50:00	08:49:00	00:00:00	11:21:00	438	207
07/20/2019 00:01:00	07/20/2019 23:59:59	2,099	18:42:24	00:49:12	00:56:00	03:31:00	00:00:00	05:16:12	398	87
07/21/2019 00:01:00	07/21/2019 23:59:59	0	23:59:59	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	0	0
07/22/2019 00:01:00	07/22/2019 23:59:59	5,677	11:52:56	00:08:00	02:05:00	09:54:00	00:00:00	12:07:00	468	236
07/23/2019 00:01:00	07/23/2019 23:59:59	4,458	12:53:00	00:28:53	01:31:00	08:57:00	00:00:00	10:56:53	407	187
07/24/2019 00:01:00	07/24/2019 23:59:59	2,765	17:00:56	00:50:00	01:36:00	04:33:00	00:00:00	06:59:00	395	115
07/25/2019 00:01:00	07/25/2019 23:59:59	5,680	11:14:00	00:32:20	02:31:00	09:42:00	00:00:00	12:45:20	445	236
07/26/2019 00:01:00	07/26/2019 10:22:00	1,372	07:35:14	00:10:13	00:16:00	02:19:00	00:00:00	02:45:13	497	132



6. Production Notes (Downtime Reasons & Product Changes)

ADMIN users can create a list of downtime reasons and products. This allows an operator to easily record production events such as a product change on the conveyor or unscheduled downtime.







Choose **Account Settings** under the **Admin** menu.



Products [New Products...](#)

Product Name	Product Note	
57 Limestone	\$30 / ton	 

Downtime [New Downtime...](#)

Down Time Name	
Belt Problem	 
Crusher Breakdown	 
Change Screens	 

Click **New Products** or **New Downtime** to add new items.

Add Product ✕

Product Name

Product Note

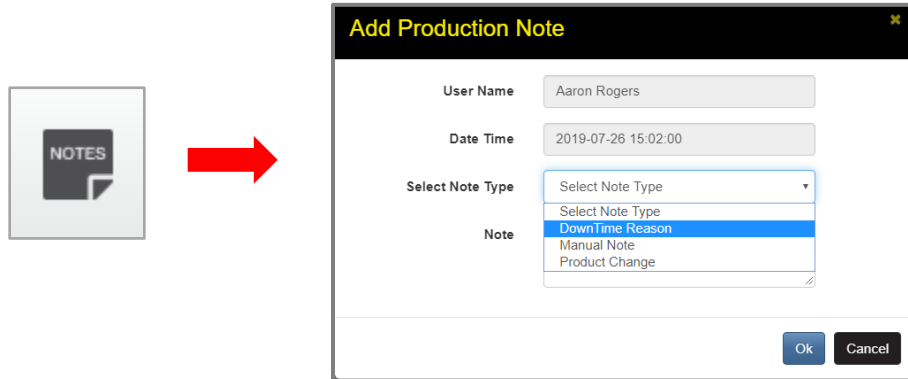
Add Down Time ✕

Down Time Name

Click the **Edit** icon to modify an existing item or **Delete** to remove it.



Production Notes can be created from the Dashboard. Click **NOTES** on the Dashboard and choose **Downtime Reason**, **Product Change** or **Manual Note**.

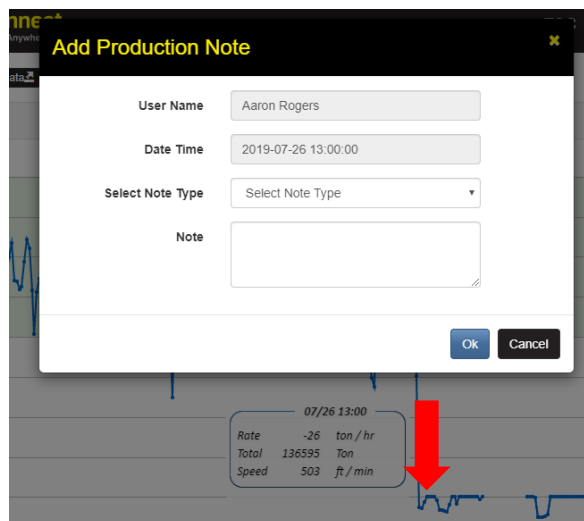


The diagram illustrates the process of adding a production note. On the left, there is a square icon with a document symbol and the word "NOTES". A red arrow points from this icon to a modal window titled "Add Production Note". The modal window contains the following fields:

- User Name:** Aaron Rogers
- Date Time:** 2019-07-26 15:02:00
- Select Note Type:** A dropdown menu with the following options: "Select Note Type", "Select Note Type", "DownTime Reason" (highlighted in blue), "Manual Note", and "Product Change".
- Note:** A text area for entering the note.
- Buttons:** "Ok" and "Cancel" at the bottom right.

Production Notes can also be created from the rate graph.

Double Click on any point on the blue rate graph line to insert a note at that exact time.



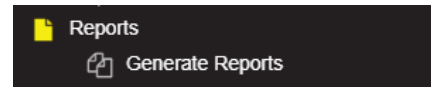
The diagram shows the "Add Production Note" modal window overlaid on a rate graph. The modal window is the same as the one in the previous image, but the "Date Time" field is set to "2019-07-26 13:00:00". The "Note" field is empty. A red arrow points from the "Rate" graph line to the "Add Production Note" modal window, indicating that a double-click on the graph line triggers the modal.

Production Notes appear in the table at the bottom of the rate graph page.

Date	User	Type	Note
07/26/2019 13:00:00	Aaron Rogers	DownTime Reason	Belt Problem

7. Production Reports

Any user can create and download production reports.
Choose **Generate Reports** under the **Reports** menu.



1. Choose **Summary** or **Detail** Report.
Summary calculates total production for the selected date range.
Detail calculates production for each day in the data range.

 A dialog box titled 'Select Report'. It has three buttons at the top: 'CANCEL', 'NEXT', and 'DELETE REPORT'. Below these are three radio button options: 'New Summary', 'New Detail', and 'Choose Previously Saved Report'. Under 'Choose Previously Saved Report' is a scrollable list box. At the bottom are three buttons: 'CANCEL', 'NEXT', and 'DELETE REPORT'.

2. Select scales to be included in the Report.

 A dialog box titled 'Select Scale(s)'. It has three buttons at the top: 'CANCEL', 'BACK', and 'NEXT'. Below these are three checkboxes with labels: '- [checked] TSC', '- [checked] TSC', and '[checked] Primary'.

3. Choose a custom time range in 24-hour format or choose a pre-configured Shift range.

 A form element with a radio button and the label 'Time:'. To its right are two input fields: 'Start' with the value '08:00' and 'End' with the value '18:00'.

 A form element with a radio button and the label 'Shift(s):'. Below it are three radio button options: 'Shift 1 06:00 to 09:59', 'Shift 2 10:00 to 18:00', and 'Shift 3 00:00 to 00:00'.

4. Select a preset data range.
(Current Week, Previous Week, Month to Date, Previous Month)

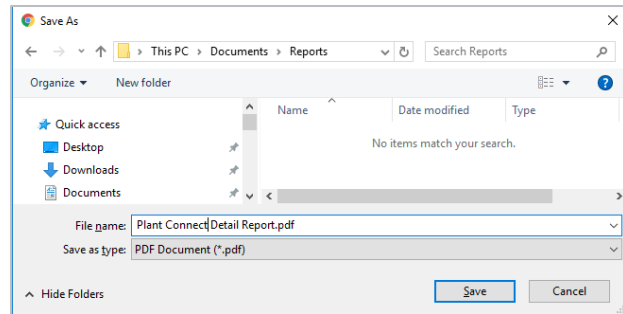
 A form element with four radio button options: 'Current Week', 'Previous Week', 'Month to Date', and 'Previous Month'.

Alternatively select a custom date range on the pop-up calendar.
Reports longer than 30 days may process slowly.

 A 'Date Range' dialog box. It has two input fields: 'Start Date' with the value '07/19/2019' and 'End Date' with the value '07/28/2019'. Below these are 'Apply' and 'Cancel' buttons. To the right is a calendar for July 2019. The calendar shows days from Sunday to Saturday. The dates 19, 20, 21, 22, 23, 24, 25, and 26 are highlighted in blue.

5. Click **GENERATE REPORT** to complete the process.

Rename the report if so desired and choose a location to save it to the computer.



6. View the PDF report.

Summary Report Example

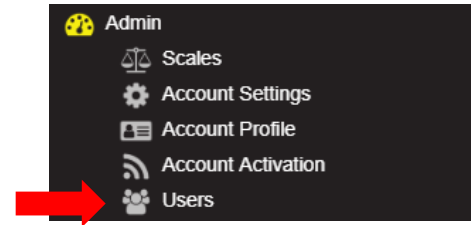
TSC										
Plant Connect Production Data Anywhere										
Production Summary Report										
Report Date Range:										
From: 2019-07-21 To: 2019-07-27										
Shift Time: 10:00 To 18:00										
Report Created Date: 07-29-2019										
Report Created By: aaron.rogers@beltwayscales.com										
Location: TSC										
Scale	Production (Ton)	Percent Of Feed	Stopped Belt (Hours)	Black Belt (Hours)	Low Production (Hours)	Optimal Production (Hours)	High Production (Hours)	Belt Run Time (Hours)	Run Time Ave Rate (ton / hr)	Run + Stopped Time Ave Rate (ton / hr)
Primary	17358.13	100.00	18:39:46	01:19:29	06:02:00	29:44:00	00:02:00	37:07:29	400.19	310.59
Production Total	17358.13		18:39:46	01:19:29	06:02:00	29:44:00	00:02:00	37:07:29	400.19	310.59

Detail Report Example

TSC												
Plant Connect Production Data Anywhere												
Production Detail Report												
Report Date Range:												
From: 2019-07-21 To: 2019-07-27												
Shift Time: 10:00 To 18:00												
Report Created Date: 07-29-2019												
Report Created By: aaron.rogers@beltwayscales.com												
Location: TSC												
Scale Name: Primary			Product Name:				Feed Scale:					
Start Date/Time	End Date/Time	Accumulated Weight (Ton)	Percent Of Feed	Stopped Belt (Hours)	Black Belt (Hours)	Low Production (Hours)	Optimal Production (Hours)	High Production (Hours)	Belt Run Time (Hours)	Total Time (Hours)	Run Time Ave Rate (ton / hr)	Run + Stopped Time Ave Rate (ton / hr)
07/21 10:00	07/21 18:00	0.00	0.00	08:01:00	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	08:00:59	0.00	0.00
07/22 10:00	07/22 18:00	5005.39	0.00	00:37:00	00:08:00	01:14:00	06:02:00	00:00:00	07:24:00	08:00:59	676.40	624.37
07/23 10:00	07/23 18:00	4283.87	0.00	00:00:00	00:15:00	01:05:00	06:41:00	00:00:00	08:01:00	08:00:59	534.37	534.37
07/24 10:00	07/24 18:00	2782.23	0.00	03:03:00	00:14:00	01:19:00	03:25:00	00:00:00	04:58:00	08:00:59	560.18	347.06
07/25 10:00	07/25 18:00	5066.59	0.00	00:00:00	00:16:00	01:16:00	06:29:00	00:00:00	08:01:00	08:00:59	632.01	632.01
07/26 10:00	07/26 18:00	2770.52	0.00	04:15:46	00:21:57	00:19:00	02:45:00	00:01:00	03:26:57	07:42:42	803.24	359.25
07/27 10:00	07/27 18:00	4382.73	0.00	02:43:00	00:04:32	00:49:00	04:22:00	00:01:00	05:16:32	07:59:31	830.76	548.37
Total		24291.33	0.00	18:39:46	01:19:29	06:02:00	29:44:00	00:02:00	37:07:29	55:47:14	576.71	435.06

8. Create Users

An **Admin** can create an unlimited number of other users.
Choose **Users** under the **Admin** menu.

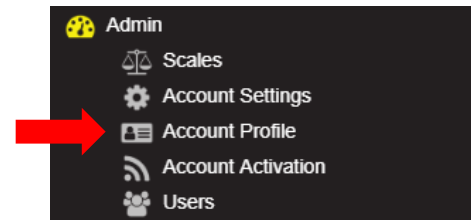


Enter the users email address, and choose Admin or User customer role and location role.
Multiple users may be created at the same time as long as they have identical roles.
The new user will receive a verification email as described on page 2.

A 'New User' form with a dark header. It contains three main sections: 'Email Address' with a text input field containing 'aaron.rogers@beltwayscales.com' and a placeholder 'Email Address(Comma Seprated)'; 'Customer Roles' with a dropdown menu set to 'Customer Admin'; and 'Location List' with a text input field containing 'TSC' and a dropdown menu set to 'Location Admin'. At the bottom right are 'Ok' and 'Cancel' buttons.

9. Account Profile / Activation End Date

An **Admin** user must keep the **Account Profile** billing address up to date.



The **Plant Connect Activation End Date** is displayed on the profile screen.
The service must be renewed through a local dealer prior to the end date.

A light gray box titled 'Activation Details'. It contains a section labeled 'End Date' with a text input field showing the date '2020-12-31'.

A warning messages appears when the **Activation End Date** is within 30 days.

Warning!
ACTIVATION PERIOD EXPIRES IN 30 DAYS!

Users can still login to Plant Connect after the activation period has expired but all functions will remain locked until the renewal request has been processed.

Warning!
ACTIVATION PERIOD EXPIRED!

10. Alarms

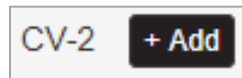
Admin users can create alarms to track when the scale changes state.
Choose **Alarms** under the main menu.



1. Click **Define Alarms**.

+ Define alarms

2. Click **Add** to create a new alarm for a scale.



Add Alarm for CV-2

State

Duration (minutes)

Color

☒ Shift 1
☒ Shift 2
☒ Shift 3

3. Choose the state to trigger the alarm.
Offline = Scale not communicating to Plant Connect
Stopped Belt = Belt speed below stopped belt limit
Black Belt = TPH below black belt limit
Low Production = TPH above black belt and below the low limit
Optimal Production = TPH above low and below high limit
High Production = TPH above high limit
Calibration Fault = TPH negative or much higher than high limit

State

Offline
Stopped Belt
Black Belt
Low Production
Optimal Production
High Production
Calibration Fault

4. Choose **Duration in minutes**.
The alarm will trigger only after the scale has changed state for longer than the duration period.

Duration (minutes)

5. Choose the alarm **Color**.







Color

GREEN
BLACK
BLUE
YELLOW
ORANGE
RED

6. Choose when the alarm should be active.
At least one shift must be configured for alarms to work.




☒ Shift 1
☒ Shift 2
☒ Shift 3



This example shows a scale with alarms configured to trigger after 10 minutes.

CV-2	+ Add			
State	Duration (min)	Shift(s)	Color	Delete
Offline	10	Shift 1, Shift 2, Shift 3		Delete
Stopped Belt	10	Shift 1, Shift 2, Shift 3		Delete
Black Belt	10	Shift 1, Shift 2, Shift 3		Delete
Low Production	10	Shift 1, Shift 2, Shift 3		Delete
High Production	10	Shift 1, Shift 2, Shift 3		Delete
Calibration Fault	10	Shift 1, Shift 2, Shift 3		Delete

Click **View Alarms** to return to the alarm monitoring page.

[View alarms](#)

+ Define alarms				
Color	Scale Name	State	Duration (HH:MM)	Shift
	CV-2	High Production	00:28	Shift 1
	CV-3	Black Belt	00:07	Shift 1
	CV-4	Offline	261:48	Shift 1

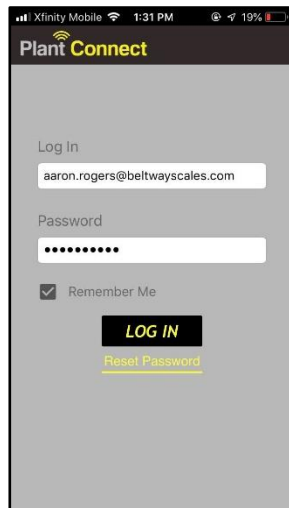
Color	Scale Name	State	Duration (HH:MM)	Shift
	PRODUCT	Offline	2875:54	Shift 1
	Mobile Scale	Offline	651:15	Shift 1

11. Smartphone App

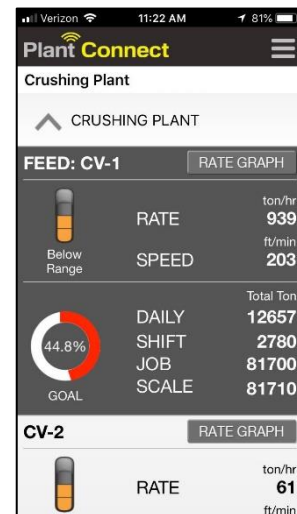
The **Plant Connect** smartphone app is available from the Iphone or Android app stores.



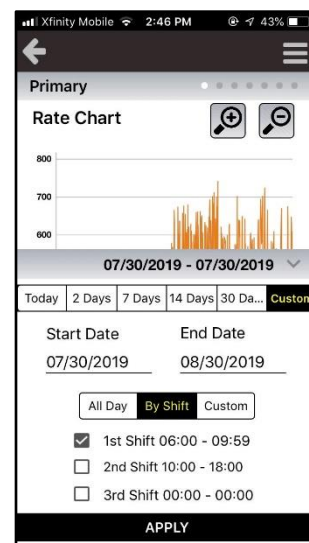
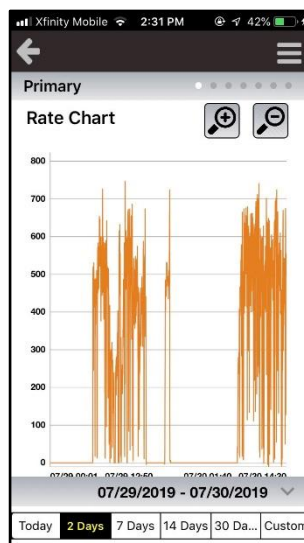
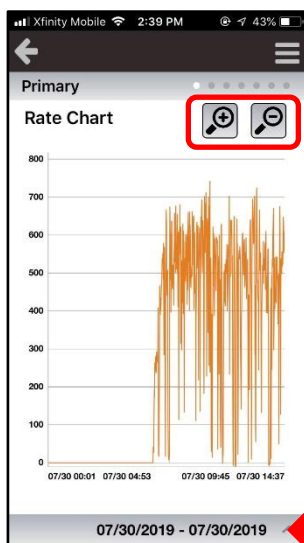
1. Login with username and password.



2. **Dashboard:** Shows Totals, Tons per hour, Belt Speed and Goals. Swipe Up to view other scales at the location.

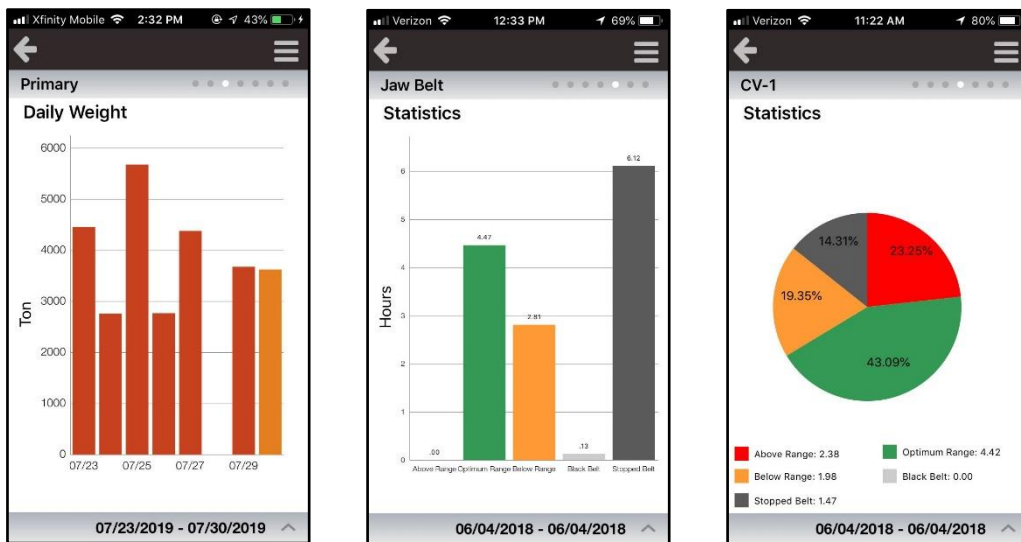


3. Click **RATE GRAPH** to view the historical graph. Use magnifier buttons to zoom in or out.



Click the date picker to choose a preset or custom time range.

4. Swipe left to view the historical totals and statistics.



Contact tech support for further assistance.

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