

# Weighing Motion System

## Weighing User Guide

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2 Revision History

Version No	Date	Author	Change Log
1	09/03/2024	Gautham D	

### 3 Operator Controls

The following is the list of operations that the operator can do,

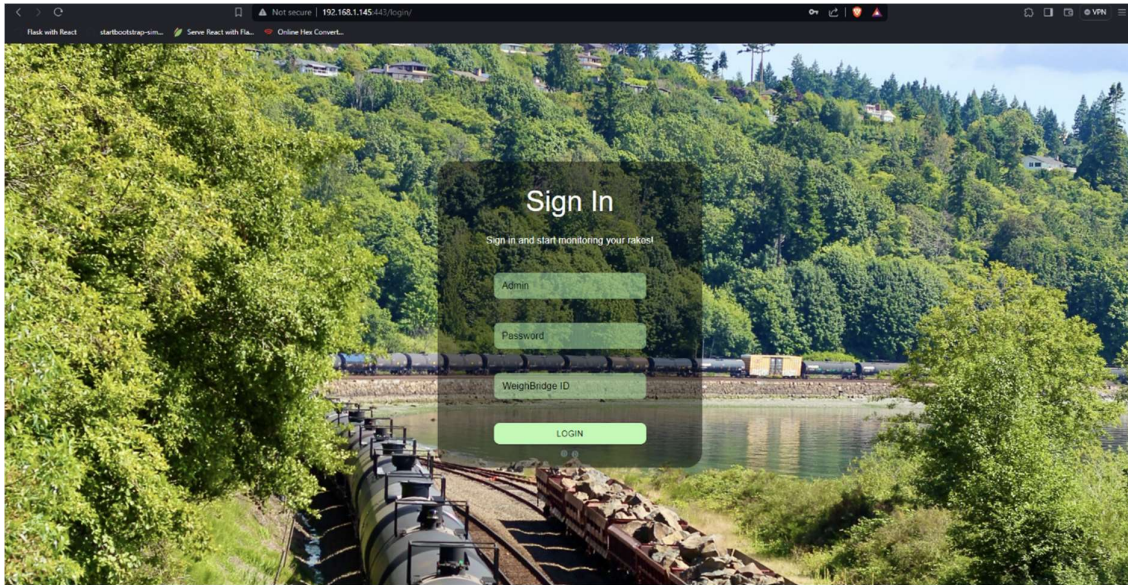
- Select and edit rakes for weighing.
- Initiate and terminate weighing operation.
- Generate reports and upload data to FOIS.
- Check the status of Track logic switches.

## 4 User Guide

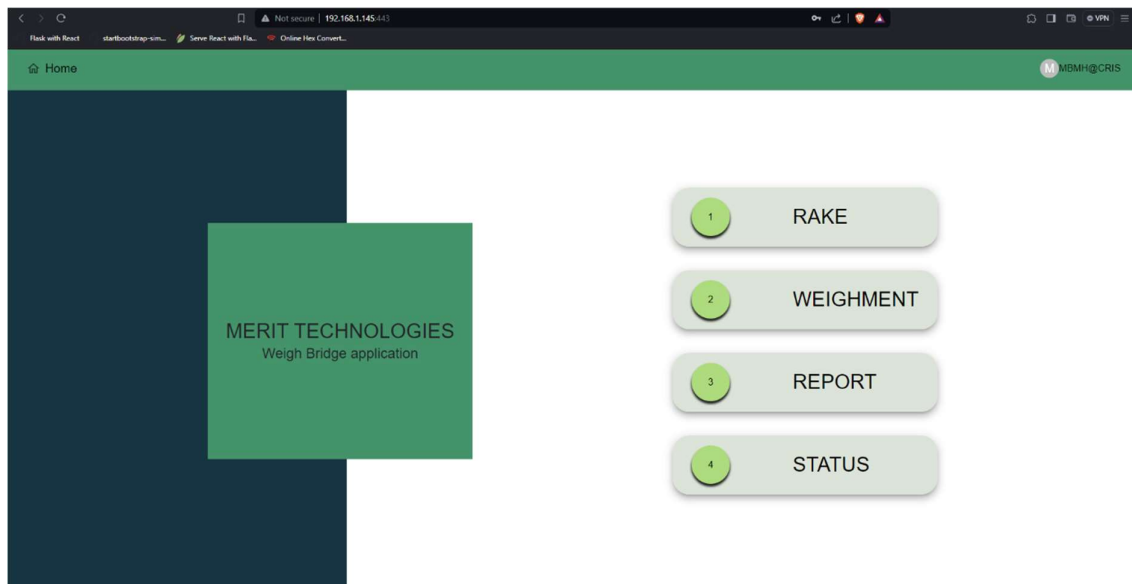
The operation needs to get the login credential details from the admin.

### 4.1 Login to the Dashboard

- Weighment page must be accessed by <http://<IP ADDRESS>:443/>
  - Example <http://192.168.1.145:443/>



- Enter the received credentials from the admin on their respective fields and select the WeighBridge ID from the list of available weighbridge IDs in the dropdown box. In case the weighbridge ID is not available in the dropdown box, contact your administrator to add the weighbridge ID to the database. On successful login, the browser will move to the Home page as shown below

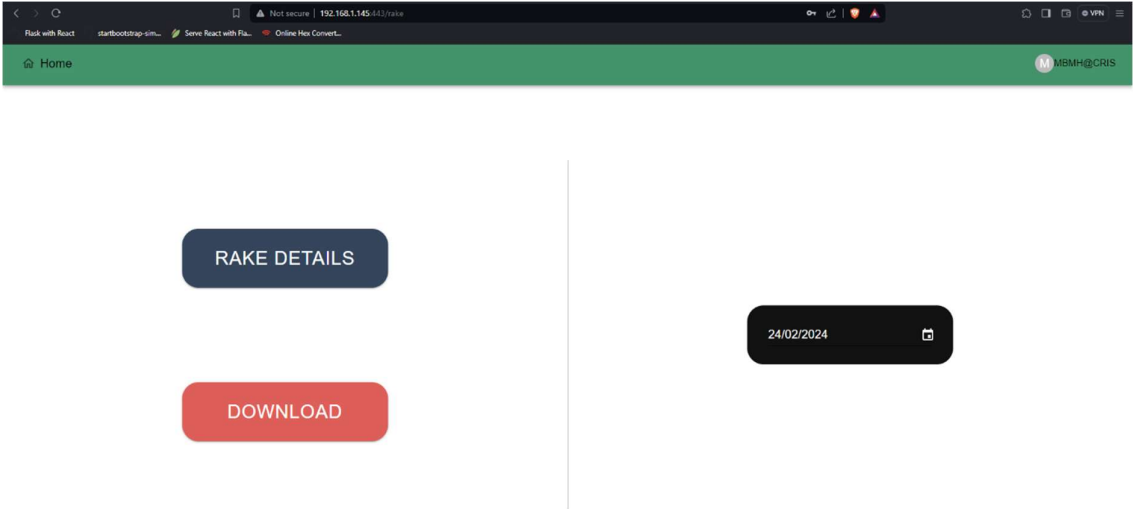


- Username will be displayed in the top-right of the page.

4.2 Selecting and Editing the Rakes

4.2.1 Downloading rakes for weighment

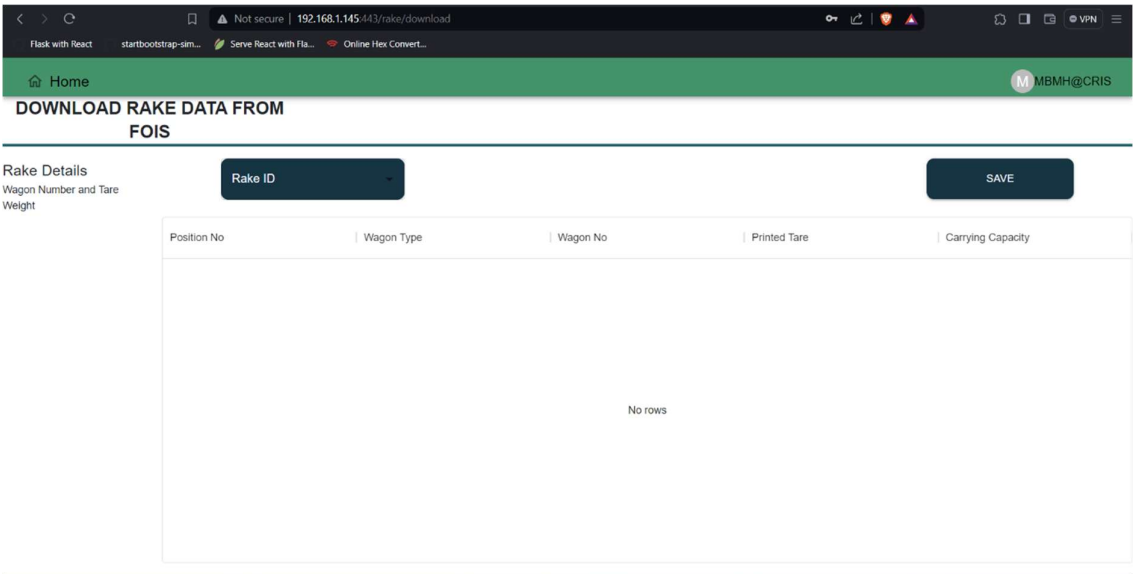
- Rakes need to be downloaded from the FOIS server for weighment.
- Click on the RAKE option which is available on the home page and it redirects to the following page



- Select the date from which the available rakes need to be downloaded and click on the Download button.
  - Example – 24/02/2024

4.2.2 Selecting Rakes for Weighment

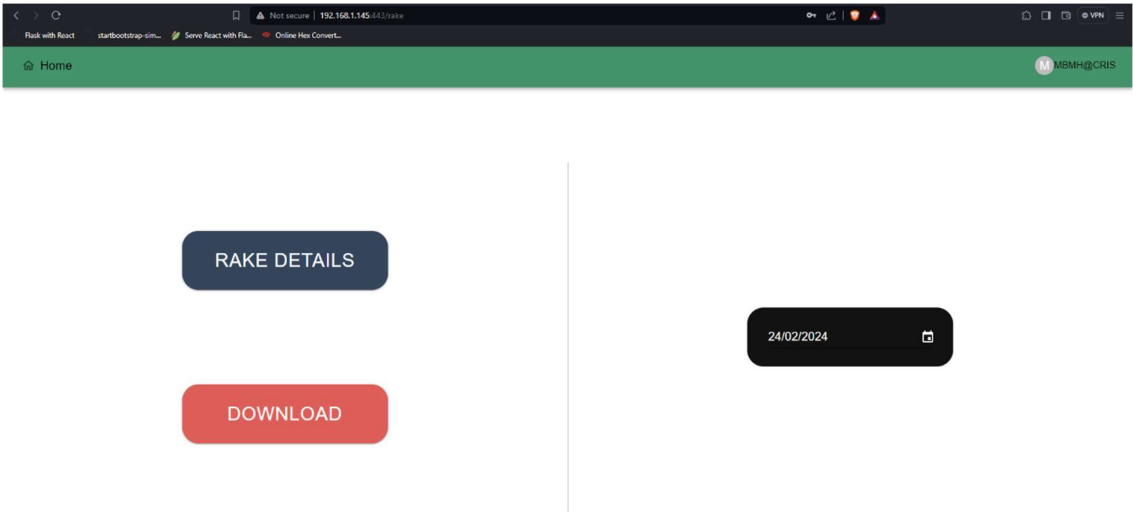
- When the rakes are downloaded from the FOIS server, the page redirects to the rake selection page as shown below



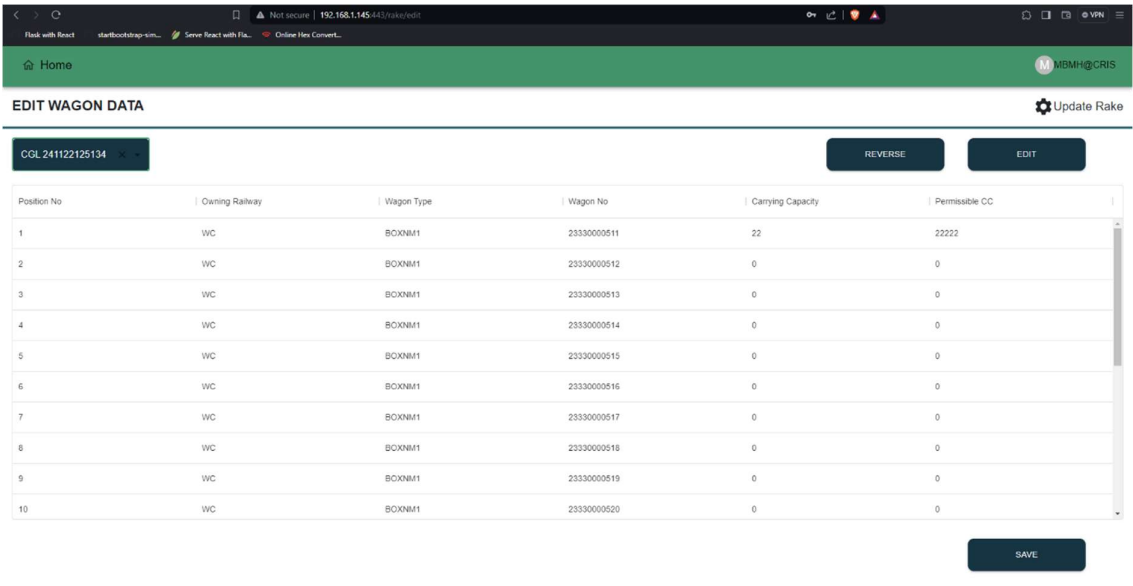
- The list of the downloaded rakes is updated in the Rake ID dropdown box. Select the rake from the available rake IDs for weighment and click the SAVE button.
- The selected rake ID will be updated in the database and click on the Home icon.

4.2.3 Editing the Wagon Data

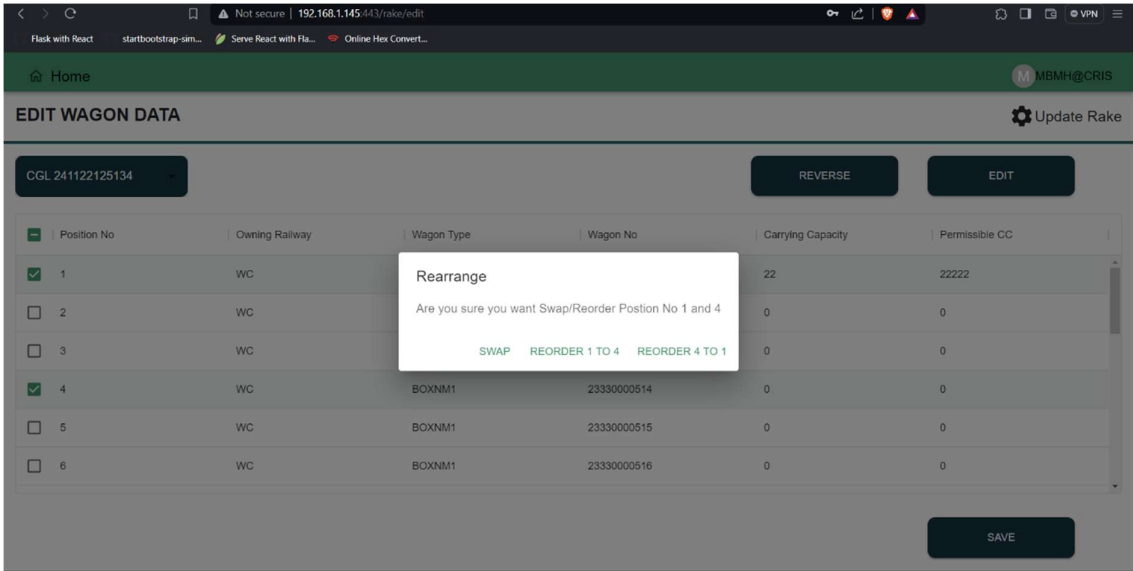
- From the Home Page, click on the RAKE option it redirects to the following page



- Click on the RAKE Details button to redirect to the Edit Rake page.
- The list of weighments finished Rake IDs which was not uploaded to the FOIS server as well as the Rake that is selected for weighment will be updated in the Dropdown box.
- Select the Rake ID for editing its wagon details as shown below



- Click on the REVERSE button for reversing the wagon arrangements.
- Click on the EDIT button and the click will enter the edit mode.
- Double-click on the table cell to edit the wagon details and hit the Enter button to update the table.
- After enabling the wagon edit mode, the table will enable a checkbox column for swapping and reordering.
- Click on the 2 different checkboxes and the dialog box that shows swap and reorder button will appear as shown below



- Example in the figure position no 1 & 4 is selected,
  - Click on the SWAP button in the shown dialog box to swap the 2 wagons.
  - Click on the REORDER 1 to 4 button, to change the 1<sup>st</sup> wagon position to 4<sup>th</sup> place and 2,3&4 wagons will move to 1,2&3 position respectively.
  - Click on the REORDER 4 to 1 button, to change the 4<sup>th</sup> wagon position to 1<sup>st</sup> place and 1,2&3 wagons will move to 2,3&4 position respectively.
- After editing the wagon details, the changes must be saved to the database using the SAVE button.

#### 4.2.4 Rake Data Editing

- Select the rake in the dropdown box and click on the Update Rake button in the Edit Wagon Data page and it directs to the Rake Data Editing page as shown below

The screenshot shows a web application titled 'Rake Data Editing'. It contains a form with the following fields: Serial Number (1), Rake Number (CGL 241122125134), Commodity\* (empty), Source Station\* (CGL), Destination Station\* (MYP), Consignee (ACB), Billing Address Line 1 (empty), Billing Address Line 2 (empty), Billing Address Line 3 (empty), Loadout Operator's Name (MBMH@CRIS), Number of Wagons (14), Loco Number (#), Rake Placement (24/02/2024 17:27:53), and Completion At (24/02/2024 17:27:53). There is an 'UPDATE' button at the bottom.

Serial Number	1
Rake Number	CGL 241122125134
Commodity*	
Source Station*	CGL
Destination Station*	MYP
Consignee	ACB
Billing Address Line 1	
Billing Address Line 2	
Billing Address Line 3	
Loadout Operator's Name	MBMH@CRIS
Number of Wagons	14
Loco Number	#
Rake Placement	24/02/2024 17:27:53
Completion At	24/02/2024 17:27:53

- Update the rake details and click the Update button to store the updated values in the database.
- Click on the Home icon to move to the home page.



### 4.3 Weighment

- After downloading and editing the rakes, click on the Weighment option and the page redirects to the weighment pages as shown below

**WEIGHMENT**

Rake ID : CGL241122125134

Position No	Wagon Type	Wagon No	Carrying Capacity	No Of Axes	Gross Weight	Tare Weight	Net Weight	Speed
1	BOXNM1	23330000511	22.00	4	98.00	22.53	75.47	7.7
2	BOXNM1	23330000512	0.00	4	86.00	22.53	63.47	8.7
3	BOXNM1	23330000513	0.00	4	82.00	22.53	59.47	8.6
4	BOXNM1	23330000514	0.00	2	42.00	22.53	19.47	8.2
5	BOXNM1	23330000515	0.00	4	76.00	22.53	53.47	8.5
6	BOXNM1	23330000516	0.00	4	98.00	22.53	75.47	7.7
7	BOXNM1	23330000517	0.00	4	84.00	22.53	61.47	8.7
8	BOXNM1	23330000518	0.00	4	80.00	22.53	57.47	8.6
9	BOXNM1	23330000519	0.00	2	42.00	22.53	19.47	8.2

Initial Direction : Status

Track Switch Status	Track Switch Count	Axle Counts	Speed
Tx 1A Tx 2A Tx 3A Tx 4A	SW1: 0 SW2: 0	Rcvd: 0	0
Tx 1B Tx 2B Tx 3B Tx 4B	SW3: 0 SW4: 0	Ignored: 0	0

TERMINATE

- The selected rake's wagon details will be shown in the table.
- Click on the INITIATE button and enter the number of axles to be eliminated in the dialog box shown and click YES.
- When initiated successfully, the success notification will be shown in the top-right of the page.
- When the wagons are passing the track logic switches, the respective wagon weights will be updated in the table row.
- When all the wagons are weighed, the operator has to manually inspect the weighed result and on successful weighment, the weighment has to be terminated manually by the operator using the TERMINATE button.
- If there is any error in the weighment, the operator can reinitiate the weighment using the INITIATE button.

4.4 Report and Upload

- When the weighment is terminated, the result of the weighment will be viewed on the Report Page.
- Click on the Report option from the Home Page and it redirects to the Report Page.
- The list of completed weighments will be updated in the table as shown below

Flask with Reactstartbootstrap-sim...Serve React with Fla...Online Hex Convert...

Home

MBMH@CRIS

REPORTS AND UPLOAD

<input type="checkbox"/>	Rake Number	Date & Time of Weighing	No of Wagons	Commodity	Total Net Weight	FOIS Status
<input type="checkbox"/>	12345678	2023-02-15 11:43:19	100	CORE 2	0.00	Upload Pending
<input type="checkbox"/>	CGL 10000	2023-08-28 15:01:09	58	WHEAT	2776.01	Upload Pending
<input type="checkbox"/>	CGL 10001	2023-08-27 16:08:29	20	12343	1109.91	Upload Pending
<input type="checkbox"/>	CGL 10002	2023-08-24 16:08:29	32		1827.05	Upload Pending
<input type="checkbox"/>	CGL 10003	2023-08-23 16:08:29	53	CORE 2	2821.50	Upload Pending
<input type="checkbox"/>	CGL 10004	2023-08-28 16:08:29	45	CORE 2	2463.41	Upload Pending
<input type="checkbox"/>	CGL 10005	2023-08-28 16:08:29	32	CORE 2	1781.48	Upload Pending
<input type="checkbox"/>	CGL 10006	2023-08-28 16:08:30	43	CORE 2	2405.93	Upload Pending
<input type="checkbox"/>	CGL 10007	2023-08-25 16:08:30	34	CORE 2	1788.82	Upload Pending
<input type="checkbox"/>	CGL 10008	2023-08-24 16:08:30	23	CORE 2	1276.74	Upload Pending
<input type="checkbox"/>	CGL 10009	2023-08-26 16:08:30	44	CORE 2	5142.08	Upload Pending

WEIGHING ONLY REPORT

WEIGHING REPORT

DETAILED WEIGHING REPORT

SUMMARY REPORT

UPLOAD TO FOIS

- Select the RakeID to view/upload the report.

4.5 Status

The status page is used to monitor and debug the track switches. The Status page image are as follows

Home

MBMH@CRIS

System Status

Sl.No	Input Details	Status	Sl.No	Output Details	Status
1	Track Switch 1A	<div></div>	1	System Ready (Relay)	<div></div>
2	Track Switch 1B	<div></div>	2	Overspeed Lamp (Relay)	<div></div>
3	Track Switch 2A	<div></div>	3	Alarm Hooter	<div></div>
4	Track Switch 2B	<div></div>	4		<div></div>
5	Track Switch 3B	<div></div>	5		<div></div>
6	Track Switch 3A	<div></div>	6		<div></div>
7	Track Switch 4B	<div></div>	7		<div></div>
8	Track Switch 4A	<div></div>	8		<div></div>
9	Start Weigh	<div></div>	9	System Ready Lamp	<div></div>
10	End Weigh	<div></div>	10	Overspeed Lamp	<div></div>
11	AOS In Dir 5A	<div></div>	11	Advance Overspeed Lamp	<div></div>
12	AOS In Dir 5B	<div></div>	12	Unknown Vehicle	<div></div>
13	AOS Out Dir 6B	<div></div>	13	AD Failure	<div></div>
14	AOS Out Dir 6A	<div></div>	14		<div></div>
15		<div></div>	15		<div></div>
16		<div></div>	16		<div></div>

Weight : 0

RESET

4.6 Default WeighBridge Settings

Click on the Account icon and select Settings to update the default values of the weighbridge station.

Home

M MBMH@CRIS

Railcar Weighing System - Setup

Heading Line 1

MBMH

HK

Heading Line 2

HO 1

Heading Line 3

WEIGHT REPORT 2

Port to which scale is connected

Auto

Min. Net Weight for UL Calculation

2

Default Commodity

CORE 2

Default Source Station

MASSS

☒ Tare Weight Entry Manual Only

**OL/UL Values**

Declare Over Load if Exceeding

1.01

Declare Under Load if Less than

2.01

Signature 1

Gautham

Signature 2

Gauti

**Weight Control Port Option**

☐ Use for Remote ScoreBoard

☒ Use for Serial Printout

UPDATE

## 5 References