

Remote Monitoring System (RMS)

USER MANUAL



Advanced Rail Controls Pvt. Ltd

Bangalore-560092

RELEASE - V 3.0

March- 2019

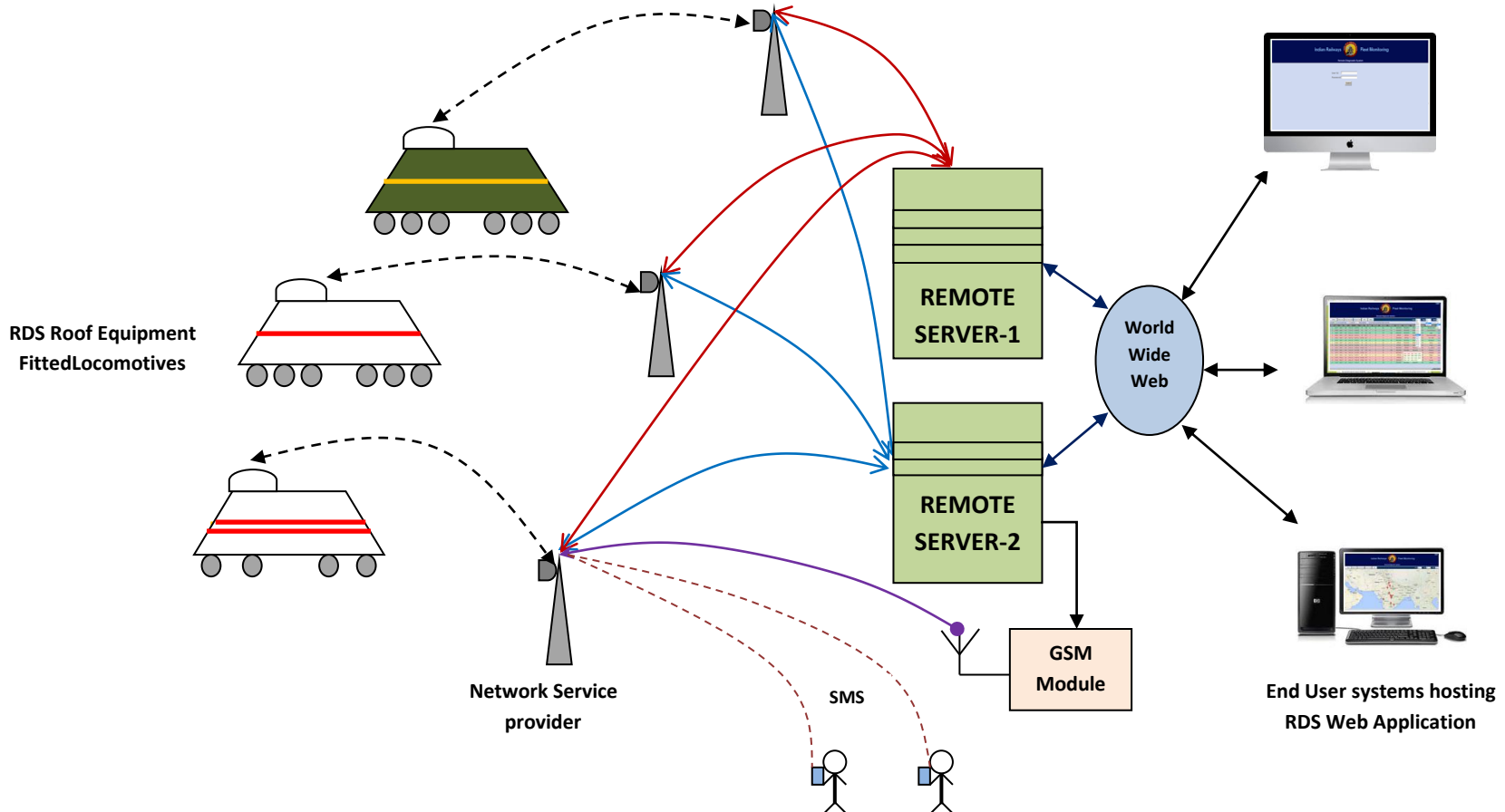
INDEX

	CONTENTS	PAGE
1.0	INTRODUCTION	2
1.1	RMS WIRING DIAGRAM	3
1.2	SYSTEM ARCHITECTURE	4
2.0	LOGIN	5
2.1	SHED SELECTION	6
2.2	THREE DIFFERENT THEMES	7
3.0	HOME PAGE	10
3.1	MAPVIEW	14
3.2	REAL TIME DATA	16
3.3	HISTORIC DATA	20
3.4	DDS	22
4.0	DRIVER DISPLAY UNIT	27

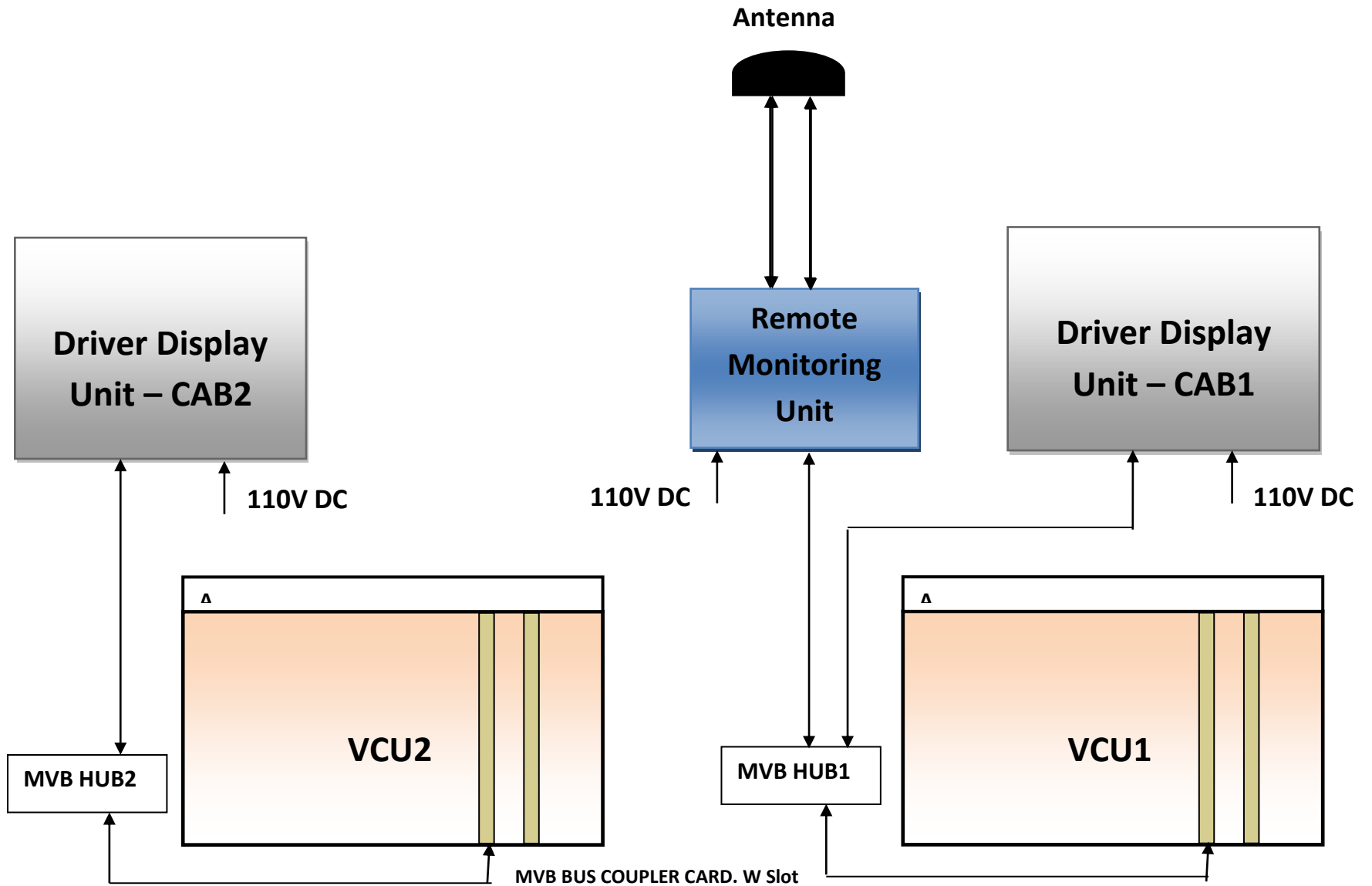
1.0 INTRODUCTION

The Remote Monitoring system collects the status of the locomotive (**MVB** variables); faults developed in a running locomotive and transmit to the base station server (**Remote Server**) on real time on a wireless network along with the location of the loco. The equipment continuously polls the internal status of the locomotive and upon generation of any faults or system generated alerts, the same is captured and sent to base server. The equipment is MVB based which gets connected to the **WAP5/ WAP7/ WAG9/9H** class of locomotives running in Indian Railways. The function of the equipment can be extended to cater to any type of rolling stock. There is an associated roof mounted antenna and cab mounted base unit which houses multiple network interfacing devices (**2 GSM**) and a **GPS** receiver. Many process variables of the locomotive can be captured through MVB and transmitted to base station.

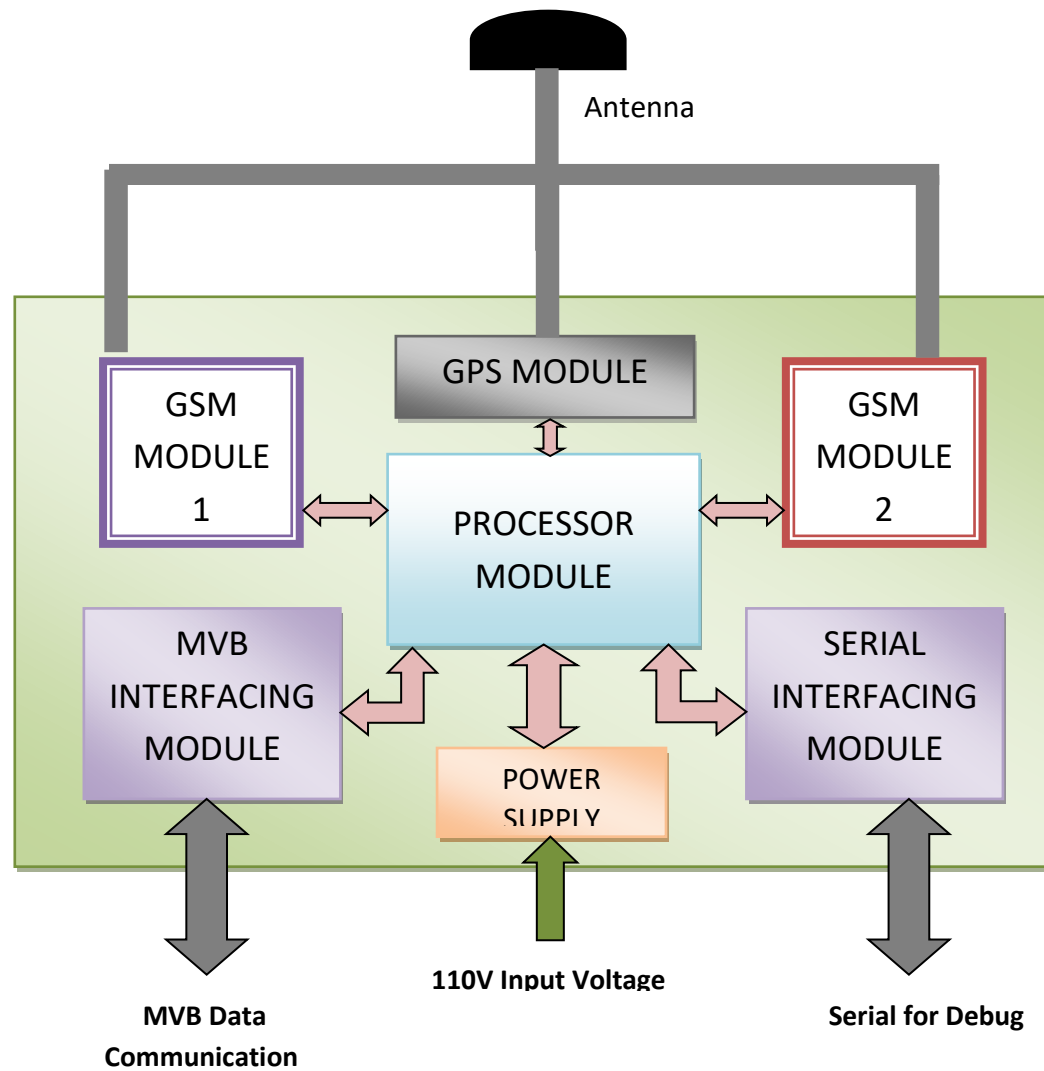
The user can view the status of locomotive by logging on to www.irfleetmonitor.in



1.1 RMS WIRING DIAGRAM:



1.2 SYSTEM ARCHITECTURE:



2.0 WEB ACCESS: LOGIN PAGE


End user of the system can view the status, parameters and faults of the locomotives by logging in to the webpage: www.irfleetmonitor.in. Login page has User Id and password fields which must be entered. On clicking Sign In button with the correct User Id and Password, the page gets redirected to **SHED SELECTION** page.

On clicking Sign Up link, page gets redirected to **REGISTER** page where personal registration can be done.

Remote Diagnostic System

Type	Shed	Date	Time	Panto	VCB	Speed	VCAT (kV)	VBAT (Volts)	TE/BE (kN)	Isolation	Nearest Station	Map
WAP-7	HWH	12-05-14	17:25:12	UP	ON	0	24	110	0	NO	Vijayawada	Click
WAP-7	LGD	12-05-14	15:06:03	UP	ON	0	26	111	0	NO	Uppal	Click
WAP-7	LGD	12-05-14	18:21:08	UP	ON	29	24	111	33	YES	Ralapet	Click
WAP-7	LGD	12-05-14	18:24:05	UP	ON	0	26	111	0	N	SS01 SS02 SS03 SS04 SS05	
WAP-7	GZB	21-02-14	12:28:37	UP	ON	11	24	110	23	N	SS06 SS07 SS08 SS09 SS10	
WAP-7	LGD	12-05-14	18:10:42	DOWN	OFF	0	0	0	0	N	SS11 SS12 SS13 SS14 SS15	
WAP-7	LGD	21-02-14	10:48:45	UP	ON	8	22	111	0	N	SS16 SS17 SS18 SS19	
WAP-7	LGD	21-02-14	10:48:45	UP	ON	8	22	111	0	NO	Malkajgiri	Click

Complete Loco Information
Information regarding DDS, High Voltage, Temperature, Software Version, Isolation etc are displayed.



USER ID

PASSWORD

[Sign In](#) [Sign Up](#)

Indian Railways Fleet Monitoring

Designed & Maintained by Advanced Rail Controls Pvt. Ltd.

2.1 SHED SELECTION

The screenshot displays the 'Remote Diagnostic System' interface. At the top, the title 'Remote Diagnostic System' is centered. Below it is a map of India with several colored pins indicating locomotive locations. A pop-up window for locomotive '31110 AQ WAG-9' is visible, showing 'Speed: 0km/h' and 'Nearest Station: Ajni'. Below the map, the text 'Map View' is followed by a description: 'This feature provides positioning of all the Loco's across India that are fitted with RDS giving the necessary description of each Loco.' At the bottom, there is a control panel for 'Indian Railways Fleet Monitoring' featuring the Indian Railways logo and a grid of buttons: LGD, GMO, AQ, GZB, BIA, HWH, and an 'ALL' button at the bottom. The footer of the interface reads 'Designed & Maintained by Advanced Rail Controls Pvt. Ltd.'.

Here on clicking the required shed, page gets redirected to default page with selected shed details.

2.2 THREE DIFFERENT THEMES

User can select 3 different themes. Goto settings in which there is an tab, “Themes”, in which user can select 3 themes. Black, Blue & Green.

BLACK DIAMOND

Indian Railways Fleet Monitoring

Home | Map View | Real Time Data | Historic Data | DD & Alerts | Settings | Admin

Remote Diagnostic System Total RDS Loco's: 40

SLNo	Status	Loco	Type	Shed	Date	Time	Panto	VCB	Speed	VCAT (kV)	VBAT (Volts)	TE/BE (kV)	Isa	Nearest Station	Map
1	●	30205	WAP-7	HWH	08-04-14	14:32:09	UP	OFF	0	23	99	0	NO	Liluah	Click
2	●	30206	WAP-7	BIA	22-07-14	11:57:45	UP	ON	0	27	110	0	NO	Bilaspur	Click
3	●	30237	WAP-7	LGD	21-07-14	13:57:23	UP	ON	0	23	111	0	NO	Chandernagar	Click
4	●	30239	WAP-7	LGD	22-07-14	06:46:31	UP	OFF	0	0	99	0	NO	Visakhapatnam	Click
5	●	30240	WAP-7	LGD	22-07-14	11:33:34	UP	ON	109	23	110	151	NO	Vempalli	Click
6	●	30243	WAP-7	GZB	22-07-14	11:27:34	DOWN	OFF	0	0	99	0	NO	Ghaziabad	Click
7	●	30230	WAP-7	LGD	29-06-14	04:42:41	DOWN	OFF	0	0	0	0	NO	Hezret Nizamuddin	Click
8	●	30232	WAP-7	GZB	22-07-14	11:59:49	UP	ON	0	23	110	0	NO	Sealdah Main	Click
9	●	30233	WAP-7	LGD	04-06-14	22:28:38	UP	ON	110	26	110	67	NO	Pindial	Click
10	●	30234	WAP-7	GZB	23-06-14	19:43:30	DOWN	OFF	0	0	0	0	NO	Bhopal	Click
11	●	30236	WAP-7	GZB	22-07-14	11:57:31	UP	ON	133	26	111	43	NO	Paraj	Click
12	●	30238	WAP-7	LGD	22-07-14	11:28:06	DOWN	OFF	0	0	0	0	NO	Hezret Nizamuddin	Click
13	●	30239	WAP-7	LGD	22-07-14	11:57:01	UP	ON	102	26	111	157	NO	Ghanapur	Click
14	●	30260	WAP-7	LGD	22-07-14	11:59:18	UP	ON	95	26	111	165	NO	Hingshahat	Click
15	●	30261	WAP-7	LGD	22-07-14	11:58:33	UP	ON	92	23	111	42	NO	Pandharpalli	Click
16	●	30262	WAP-7	LGD	22-07-14	11:57:18	UP	ON	0	24	110	0	NO	Visakhapatnam	Click
17	●	30263	WAP-7	AQ	13-07-14	11:48:33	UP	ON	3	24	112	2	NO	Vidyanagar	Click
18	●	30264	WAP-7	AQ	22-07-14	11:37:33	DOWN	OFF	0	0	100	0	NO	Ajni	Click
19	●	30271	WAP-7	LGD	22-07-14	11:52:39	DOWN	OFF	0	0	0	0	NO	Hezret Nizamuddin	Click
20	●	30272	WAP-7	LGD	21-07-14	23:02:40	UP	OFF	0	23	100	0	NO	Hyderabad	Click

1 2

Filter | Export To | What's New

Loco: Type: Shed:

From: To:

Latest DD & Alerts

- + 30271 FL01-0091-Power on of MCE
- + 30264 FL01-0092-ACP/Train Part
- + 30264 FL01-0091-Power on of

Legend | Downloads

- Loco In Motion
- VCB Off
- Speed=0 kmph
- No Data For More Than 3 Hours

Designed & Maintained by Advanced Rail Controls Pvt. Ltd.

DURONTO GREEN

The screenshot displays the 'Indian Railways Fleet Monitoring' web application. At the top, there is a navigation bar with links for HOME, MAP VIEW, REAL TIME DATA, HISTORIC DATA, DDS, SETTINGS, and ADMIN. Below this is a 'Remote Diagnostic System' section showing a table of locomotive data. The table includes columns for SI.No, Status, Loco, Type, Shed, Date, Time, Panto, VCB, Speed, VCAT (kV), VSAT (Volts), TE/SE (kV), Iso, Nearest Station, and Map. The locomotives listed are WAP-7 and LGD types from various sheds like HWH, BIA, LGD, GZB, AQ, and HYD. The status icons range from green (in motion) to red (VCB OFF) and grey (no data). To the right of the table, there are filters for Loco, Type, and Shed, and a 'Latest DDS Alerts' section showing recent power-on events. A legend at the bottom right explains the status icons.

SI.No	Status	Loco	Type	Shed	Date	Time	Panto	VCB	Speed	VCAT (kV)	VSAT (Volts)	TE/SE (kV)	Iso	Nearest Station	Map
1	●	30205	WAP-7	HWH	08-04-14	14:32:08	UP	OFF	0	25	99	0	NO	Liluah	Click
2	●	30206	WAP-7	BIA	22-07-14	11:37:45	UP	ON	0	27	110	0	NO	Bliespur	Click
3	●	30237	WAP-7	LGD	21-07-14	13:37:23	UP	ON	0	25	111	0	NO	Chandenagar	Click
4	●	30238	WAP-7	LGD	22-07-14	06:46:31	UP	OFF	0	0	99	0	NO	Visakhapatnam	Click
5	●	30240	WAP-7	LGD	22-07-14	11:35:34	UP	ON	105	25	110	151	NO	Vempalli	Click
6	●	30243	WAP-7	GZB	22-07-14	11:27:34	DOWN	OFF	0	0	99	0	NO	Ghazlebed	Click
7	●	30250	WAP-7	LGD	29-06-14	04:42:41	DOWN	OFF	0	0	0	0	NO	Hezret Nizamuddin	Click
8	●	30252	WAP-7	GZB	22-07-14	11:35:21	UP	ON	0	24	110	0	NO	Seelish Main	Click
9	●	30253	WAP-7	LGD	04-06-14	22:28:38	UP	ON	110	26	110	67	NO	Pindia	Click
10	●	30254	WAP-7	GZB	23-06-14	19:43:30	DOWN	OFF	0	0	0	0	NO	Bhopal	Click
11	●	30256	WAP-7	GZB	22-07-14	11:37:31	UP	ON	133	26	111	43	NO	Parsj	Click
12	●	30258	WAP-7	LGD	22-07-14	11:28:06	DOWN	OFF	0	0	0	0	NO	Hezret Nizamuddin	Click
13	●	30259	WAP-7	LGD	22-07-14	11:31:14	UP	ON	119	25	109	66	NO	Ghanapur	Click
14	●	30260	WAP-7	LGD	22-07-14	11:37:11	UP	ON	64	26	111	15	NO	Hinganghet	Click
15	●	30261	WAP-7	LGD	22-07-14	11:36:22	UP	ON	111	26	111	-96	NO	Pandispetli	Click
16	●	30262	WAP-7	LGD	22-07-14	11:37:18	UP	ON	0	24	110	0	NO	Visakhapatnam	Click
17	●	30263	WAP-7	AQ	15-07-14	11:48:35	UP	ON	3	24	112	2	NO	VidyaVihar	Click
18	●	30264	WAP-7	AQ	22-07-14	11:37:33	DOWN	OFF	0	0	100	0	NO	Ajni	Click
19	●	30271	WAP-7	LGD	22-07-14	11:52:39	DOWN	OFF	0	0	0	0	NO	Hezret Nizamuddin	Click
20	●	30272	WAP-7	LGD	21-07-14	23:02:40	UP	OFF	0	25	100	0	NO	Hyderabad	Click

Designed & Maintained by Advanced Rail Controls Pvt. Ltd.

SHATABDI BLUE

Indian Railways Fleet Monitoring

Home | Map View | Real Time Data | Historic Data | DDs | Settings | Admin

Remote Diagnostic System Total RDB Loco's: 40

Sl.No	Status	Loco	Type	Shed	Date	Time	Power	VCB	Speed	VCAT (kV)	VBAT (Volts)	TE/BE (kV)	Isr	Nearest Station	Map
1	●	30205	WAP-7	HWH	08-04-14	14:32:09	UP	OFF	0	25	99	0	NO	Litloh	Click
2	●	30206	WAP-7	BIA	22-07-14	11:53:42	UP	ON	0	27	111	0	NO	Bliespur	Click
3	●	30237	WAP-7	LGD	21-07-14	13:57:23	UP	ON	0	25	111	0	NO	Chandanager	Click
4	●	30238	WAP-7	LGD	22-07-14	06:46:31	UP	OFF	0	0	99	0	NO	Visekhepatnem	Click
5	●	30240	WAP-7	LGD	22-07-14	11:35:54	UP	ON	105	25	110	151	NO	Vempalli	Click
6	●	30243	WAP-7	GZB	22-07-14	11:27:54	DOWN	OFF	0	0	99	0	NO	Ghaziabad	Click
7	●	30250	WAP-7	LGD	28-06-14	04:42:41	DOWN	OFF	0	0	0	0	NO	Hazrat Nizamuddin	Click
8	●	30252	WAP-7	GZB	22-07-14	11:53:21	UP	ON	0	24	110	0	NO	Seelahn Main	Click
9	●	30253	WAP-7	LGD	04-06-14	22:28:38	UP	ON	110	26	110	67	NO	Pindol	Click
10	●	30254	WAP-7	GZB	23-06-14	19:43:30	DOWN	OFF	0	0	0	0	NO	Shopal	Click
11	●	30256	WAP-7	GZB	22-07-14	11:57:31	UP	ON	133	26	111	43	NO	Perej	Click
12	●	30258	WAP-7	LGD	22-07-14	11:28:06	DOWN	OFF	0	0	0	0	NO	Hazrat Nizamuddin	Click
13	●	30259	WAP-7	LGD	22-07-14	11:51:14	UP	ON	118	25	109	66	NO	Ghanapur	Click
14	●	30260	WAP-7	LGD	22-07-14	11:57:11	UP	ON	64	26	111	15	NO	Hinganghat	Click
15	●	30261	WAP-7	LGD	22-07-14	11:56:22	UP	ON	111	26	111	-36	NO	Pandilapelli	Click
16	●	30262	WAP-7	LGD	22-07-14	11:57:18	UP	ON	0	24	110	0	NO	Visekhepatnem	Click
17	●	30263	WAP-7	AQ	15-07-14	11:48:35	UP	ON	3	24	112	2	NO	Vidyeviher	Click
18	●	30264	WAP-7	AQ	22-07-14	11:37:53	DOWN	OFF	0	0	100	0	NO	Ajni	Click
19	●	30271	WAP-7	LGD	22-07-14	11:52:39	DOWN	OFF	0	0	0	0	NO	Hazrat Nizamuddin	Click
20	●	30272	WAP-7	LGD	21-07-14	23:02:40	UP	OFF	0	25	100	0	NO	Hyderabad	Click

Filter | Export To | What's New

Loco: Type: Shed:

From: To:

Latest DDs Alerts

Legend | Downloads

- Loco In Motion
- VCB Off
- Speed-0 kmph
- No Data For More Than 3 Hours

Designed & Maintained by Advanced Rail Controls Pvt. Ltd.

Three different themes are provided to let user view rest of the contents from these themes of his choice.

3.0 HOME PAGE

Links



Remote Diagnostic System

Sl.No	Status	Loco	Type	Shed	Date	Time	Panto	VCB	Speed	VCAT (kv)	VBAT (Volts)	TE/BE (kN)	Iso	Nearest Station	Map
1	●	30205	WAP-7	HWH	08-04-14	14:32:08	UP	OFF	0	25	98	0	NO	Liluah	Click
2	●	30206	WAP-7	BIA	17-07-14	14:42:38	UP	ON	0	25	110	0	NO	Durg	Click
3	●	30237	WAP-7	LGD	16-07-14	00:26:03	DOWN	OFF	0	0	98	0	NO	Vijayawada	Click
4	●	30239	WAP-7	LGD	17-07-14	14:36:53	UP	ON	107	25	118	0	NO	Mallemedugu	Click
5	●	30240	WAP-7	LGD	17-07-14	14:39:10	UP	ON	0	25	111	80	NO	1 KM	Click
6	●	30243	WAP-7	GZB	17-07-14	14:34:08	DOWN	OFF	0	0	99	0	NO	Seelahn Main	Click
7	●	30250	WAP-7	LGD	28-08-14	04:42:41	DOWN	OFF	0	0	0	0	NO	Hazrat Nizamuddin	Click
8	●	30252	WAP-7	GZB	17-07-14	13:28:46	DOWN	OFF	0	0	99	0	NO	Liluah	Click
9	●	30253	WAP-7	LGD	04-08-14	22:28:58	UP	ON	110	26	110	67	NO	Pindol	Click
10	●	30254	WAP-7	GZB	23-08-14	19:43:30	DOWN	OFF	0	0	0	0	NO	Bilpael	Click
11	●	30256	WAP-7	GZB	17-07-14	14:39:28	UP	ON	0	22	111	0	NO	Hazrat Nizamuddin	Click
12	●	30258	WAP-7	LGD	17-07-14	13:32:40	DOWN	OFF	0	0	0	0	NO	Hyderabad	Click
13	●	30259	WAP-7	LGD	17-07-14	14:36:27	UP	ON	112	22	110	141	NO	Hetambur	Click
14	●	30260	WAP-7	LGD	17-07-14	14:09:09	UP	ON	0	21	103	0	NO	New Delhi	Click
15	●	30261	WAP-7	LGD	17-07-14	13:49:00	UP	ON	0	28	110	0	NO	Hyderabad	Click
16	●	30262	WAP-7	LGD	17-07-14	08:49:28	DOWN	OFF	0	0	100	0	NO	Chennai Central	Click
17	●	30263	WAP-7	AQ	13-07-14	11:48:33	UP	ON	3	24	112	2	NO	Vilayvihar	Click
18	●	30264	WAP-7	AQ	17-07-14	13:44:01	DOWN	OFF	0	0	99	0	YES	Ajni	Click
19	●	30271	WAP-7	LGD	17-07-14	14:37:48	DOWN	OFF	0	0	0	0	NO	SS01 SS02 SS03 SS04 SS05 SS06 SS07 SS08 SS09 SS10 SS11 SS12 SS13 SS14 SS15 SS16 SS17 SS18 SS19	Click
20	●	30272	WAP-7	LGD	17-07-14	14:41:16	UP	ON	13	25	110	43	NO		Click

Dropdown List

Calendar

Click To View Location of Single Loco

Tool Tip

Home (Default) Page has

Links namely Home, Map View, Real Time Data, Historic Data, DDS, Settings and Admin.

On clicking Home link, the page gets redirected to **HOME** page.

On clicking Map View link, the page gets redirected to **MAP VIEW** page.

On mouse over the **REAL TIME DATA** link, dropdown with the following real time links appear from which required link can be clicked:

- HIGH VOLTAGE CIRCUIT**
- TRACTION CONVERTER**
- TRACTION MOTORS**
- AUXILIARY CONVERTER**
- AUXILIARY MACHINES**
- TRACTION/BRAKING**
- TEMPERATURE**
- PRESSURE**
- SUBSYSTEM**
- ENERGY**
- S/W VERSION**
- MAX VALUE**

On clicking Historic Data link, the page gets redirected to **HISTORIC DATA** page.

On clicking DDS button, the page gets redirected to **DDS** page and on mouse over the DDS link, a dropdown with the following links appear from which required link can be clicked:

- DDS**
- GLOBAL HITLIST**
- DDS ANALYSIS**

On mouse over the **SETTING** link, dropdown with the following links appear from which required link can be clicked:

PERSONALIZE

THEMES -> SHATABDI BLUE, DURONTO GREEN, BLACK DIAMOND.

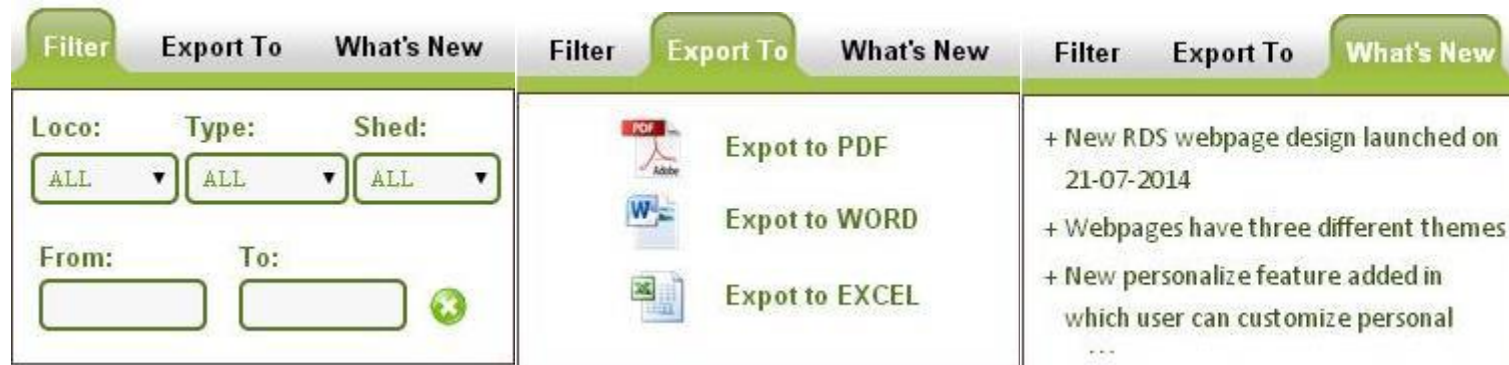
LOGOUT

On clicking Admin link, the page gets redirected to **ADMIN** page.

When the mouse hovers over the Isolation field, small window (tooltip) appears indicating which subsystem is isolated, also for nearest station field tool tip appears indicating the distance between loco and its nearest station in km. Each row in the table gets highlighted when mouse is over the row.

THREE TABS

All the pages have three tabs:



FIRST TAB contains three panels->**FILTER** panel contains the Loco Dropdown List which has loco list, Type Dropdown List which has type list, Shed Dropdown List which has shed list and two Date picker fields when clicked displays a calendar from which from and to dates can be selected. **EXPORT TO** panel contains three Image buttons: PDF which when clicked downloads the file in pdf format, WORD which when clicked downloads the file in word format, and EXCEL which when clicked downloads the file in excel format. **WHAT'S NEW** panel contains the latest updates in RDS WebPages.

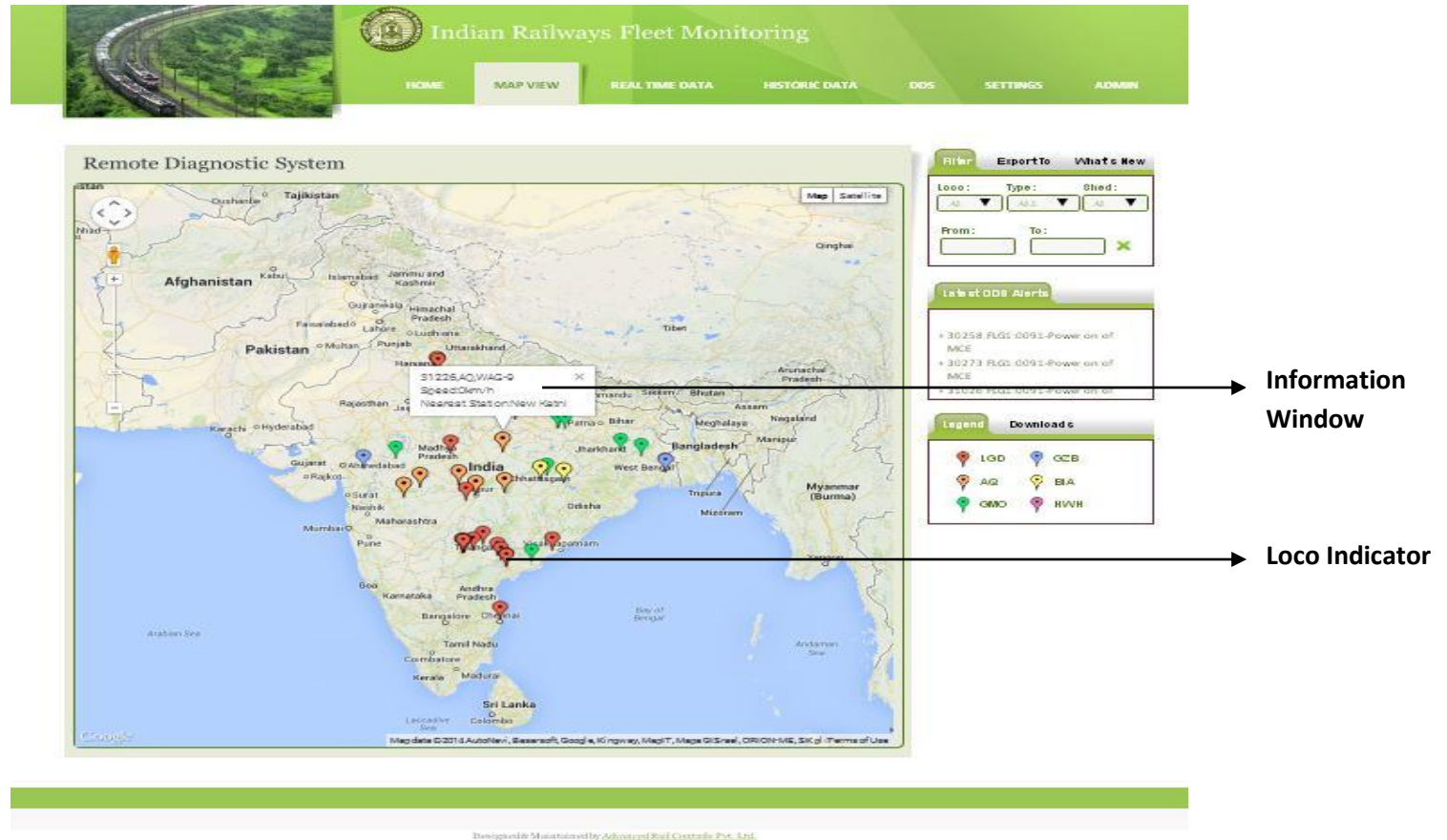


SECOND TAB contains one panel->**LATEST DDS ALERTS** panel contains latest 5 DDS alert messages.



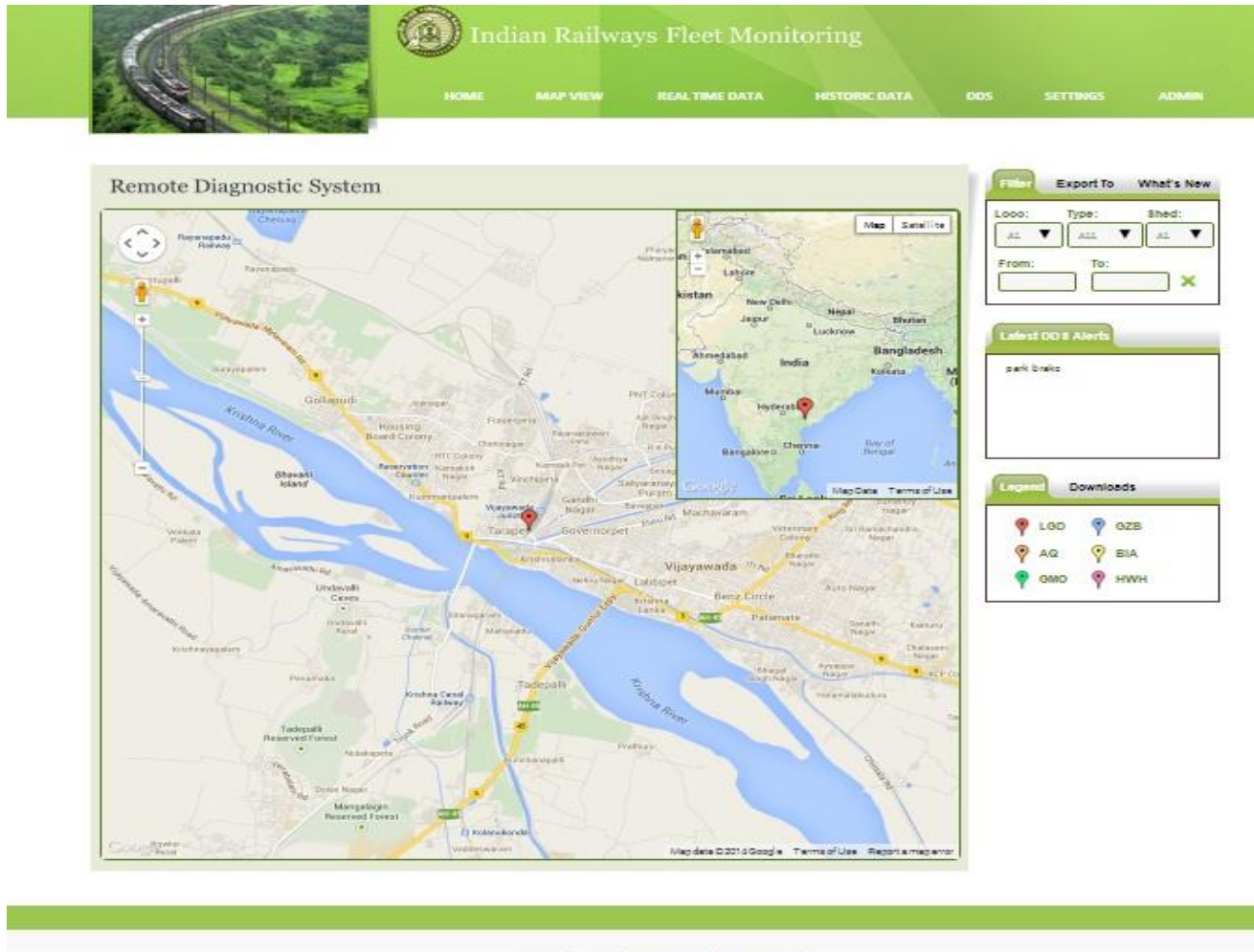
THIRD TAB contains two panels->**LEGEND** panel contain images that indicate status of the loco. Moving green image indicates that Loco is in motion. Red image indicates that VCB is OFF. Green image indicates that speed is 0kmph and Grey image indicates that there is no data for more than three hours for loco. **DOWNLOADS** panel contains user manual link from which user manual for RDS webpage can be downloaded and viewed in PDF format, Android App link which redirects to the RDS Android application.

3.1 MAPVIEW PAGE



Map View Page contains map which displays the position of every loco. When the mouse is clicked over the loco indicator, small information window appears with its respective loco, speed and nearest station details. When mouse is over the loco indicator, a tooltip with its loco number appears. **LEGEND** panel of third tab contains images that indicate which shed each loco indicator belongs to. Red indicates LGD. Blue indicates GZB. Orange indicates AQ. Yellow indicates BIA. GREEN indicates GMO. Pink indicates HWH.

LOCATION MAPVIEW PAGE



Location Map View Page has map which displays the position of selected loco from the Home page.

3.2 REAL TIME DATA

The screenshot displays the 'Indian Railways Fleet Monitoring' web application. The main navigation bar includes 'HOME', 'MAP VIEW', 'REAL TIME DATA', 'HISTORIC DATA', 'EOS', 'SETTINGS', and 'ADMIN'. The 'REAL TIME DATA' menu is expanded, showing options like 'HIGH VOLTAGE CIRCUIT', 'TRACTION CONVERTER', 'TRACTION MOTORS', 'AUXILIARY CONVERTER', 'AUXILIARY MACHINES', 'TRACTION/BRASSING', 'TEMPERATURE', 'PRESSURE', 'SUBSYSTEM', 'ENERGY', 'S/W VERSION', and 'MAX. VALUE'. The main content area is titled 'Remote Diagnostic System' and shows a table of locomotive data. A sidebar on the right contains 'Real Time Data Parameters' (with filters for Loco, Type, and Shed) and 'Latest DDB Alerts' (listing power reduction and train part alerts). A legend at the bottom right explains the status icons: Loco In Motion (green), VCB Off (red), Speed=0 kmph (blue), and No Data For More Than 8 Hours (grey).

Sl.No	Status	Loco	Type	Shed	Date	Time	Panto	VCB	Speed	...	Nearest Station	Map			
1	●	90205	WAP-7	HWH	08-04-14	14:32:08	UP	OFF	0	...	Liluah	Click			
2	●	90206	WAP-7	BIA	22-07-14	12:27:18	UP	ON	0	...	Bilaspur	Click			
3	●	90237	WAP-7	USD	21-07-14	18:57:23	UP	ON	0	...	Chandigarh	Click			
4	●	90239	WAP-7	USD	22-07-14	06:46:31	UP	OFF	0	...	Vishakhapatnam	Click			
5	●	90240	WAP-7	USD	22-07-14	12:29:48	UP	ON	0	25	110	0	NO	Balharshah	Click
6	●	90248	WAP-7	GZB	22-07-14	11:27:54	DOWN	OFF	0	0	99	0	NO	Ghaziabad	Click
7	●	90250	WAP-7	USD	28-06-14	04:42:41	DOWN	OFF	0	0	0	0	NO	Hazrat Nizamuddin	Click
8	●	90252	WAP-7	GZB	22-07-14	12:24:55	UP	ON	0	25	111	0	NO	Sadarshahjahanpur	Click
9	●	90258	WAP-7	USD	04-06-14	22:28:58	UP	ON	110	26	110	67	NO	Pindoli	Click
10	●	90254	WAP-7	GZB	28-06-14	18:48:30	DOWN	OFF	0	0	0	0	NO	Bhopal	Click
11	●	90256	WAP-7	GZB	22-07-14	12:29:26	UP	ON	88	26	110	76	NO	Saikhoh	Click
12	●	90258	WAP-7	USD	22-07-14	12:22:52	DOWN	OFF	0	0	0	0	NO	Hazrat Nizamuddin	Click
13	●	90258	WAP-7	USD	22-07-14	12:25:56	UP	ON	90	25	111	80	NO	Wazirpur	Click
14	●	90260	WAP-7	USD	22-07-14	12:29:01	UP	ON	45	26	111	-1	NO	Muzaffarpur	Click
15	●	90261	WAP-7	USD	22-07-14	12:30:08	UP	ON	2	24	110	98	NO	Madhupur	Click
16	●	90262	WAP-7	USD	22-07-14	12:27:45	UP	ON	10	23	111	10	NO	Vishakhapatnam	Click
17	●	90263	WAP-7	AQ	15-07-14	11:48:35	UP	ON	3	24	112	2	NO	Vidya Vihar	Click
18	●	90264	WAP-7	AQ	22-07-14	11:37:58	DOWN	OFF	0	0	100	0	NO	Ajmer	Click
19	●	90271	WAP-7	USD	22-07-14	12:26:10	DOWN	OFF	0	0	0	0	NO	Hazrat Nizamuddin	Click
20	●	90272	WAP-7	USD	21-07-14	23:02:40	UP	OFF	0	25	100	0	NO	Hydrabad	Click

Real Time Data has links such as:

HighVoltageCircuit	On clicking HighVoltageCircuitlink, the page gets redirected to HighVoltageCircuitPage
Traction Converter	On clicking Traction Converterlink, the page gets redirected to Traction Converter Page
Traction Motors	On clicking Traction Motorslink, the page gets redirected to Traction MotorsPage
Auxiliary Converter	On clicking Auxiliary Converterlink, the page gets redirected to Auxiliary Converter Page
Auxiliary Machines	On clicking Auxiliary Machineslink, the page gets redirected to Auxiliary Machines Page
Traction/Braking	On clicking Traction/Brakinglink, the page gets redirected to Traction/Braking Page
Temperature	On clicking Temperaturelink, the page gets redirected to Temperature Page
Pressure	On clicking Pressurelink, the page gets redirected to Pressure Page
Subsystem	On clicking SubSystemlink, the page gets redirected to SubSystem Page
Energy	On clicking Energylink, the page gets redirected to Energy Page
S/W Version	On clicking S/W Version link, the page gets redirected to S/W Version Page
Max Value	On clicking Max Valuelink the page gets redirected to Max Value Page

REAL TIME DATA PARAMETERS

High Voltage Circuit	Traction Converter	Traction Motors	Auxiliary Converter	Auxiliary Machines	Traction /Braking	Temperature	Pressure	SubSystem	Energy	S/W Version	Max Value
Loco	Loco	Loco	Loco	Loco	Loco	Loco	Loco	Loco	Loco	Loco	Loco
Type	Type	Type	Type	Type	Type	Type	Type	Type	Type	Type	Type
Shed	Shed	Shed	Shed	Shed	Shed	Shed	Shed	Shed	Shed	Shed	Shed
Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date
Time	Time	Time	Time	Time	Time	Time	Time	Time	Time	Time	Time
Panto	Panto	Panto	Panto	Panto	Panto	Panto	Panto	Panto	Panto	Panto	Panto
VCB	VCB	VCB	VCB	VCB	VCB	VCB	VCB	VCB	VCB	VCB	VCB
Speed (kmph)	Speed (kmph)	Speed (kmph)	Speed (kmph)	Speed (kmph)	Speed (kmph)	Speed (kmph)	Speed (kmph)	Speed (kmph)	Speed (kmph)	Speed (kmph)	Speed (kmph)
FLG Node	Node	FLG Node	FLG Node	FLG Node	FLG Node	FLG Node	FLG Node	FLG Node	FLG Node	FLG Node	FLG Node
Primary Current(A)	Input Contactor	DC Link Voltage (V)	Aux. Voltage (V)	Compressor	Active CAB	Transformer Oil Temperature (°C)	Transformer Oil Pressure (bar)	SS01-SS19	TE/BE Demand (kN)	FLG1	Catenary Voltage (V)
Primary Voltage(kV)	Pre Charging Contactor	Speed (rpm)	Aux. Current (A)	Oil Cooling Blower	Direction	Converter Oil Temperature (°C)	Converter Oil Pressure (bar)		Energy Consumed (kWh)	FLG2	Line Frequency (Hz)
Input Power(kW)	Oil Pressure (bar)	Temperature (°C)	DC Link Voltage (V)	Transformer Oil Pump	Throttle	Motor Temperature (°C)	MR Pressure (kg/cm2)		Energy Regenerated (kWh)	HBB1	Motor Temperature (°C)

Line Frequency (Hz)	Oil Temperature (°C)		DC Link Current (A)	Traction Motor Blower	TE/BE Demand (kN)		BP Pressure Demand (kg/cm ²)		Regeneration Ratio	HBB2	Transformer Oil Temperature (°C)
TE/BE Demand (kN)	Ventilation Level		Output Voltage (V)	Machine Room Blower	TE/BE Actual (kN)		BC Pressure			STB1	Converter Oil Temperature (°C)
TE/BE Actual (kN)			Output Frequency (Hz)	Scavenge Blower	Pneumatic Brake Demand (%)					STB2	TE/BE Demand (kN)
			Grouping	BUR Status	Constant Speed					SLG1	TE/BE Actual (kN)
					Vigilance Brake					SLG2	

3.3 HISTORIC DATA PAGE

Indian Railways Fleet Monitoring

HOME MAP VIEW REAL TIME DATA HISTORIC DATA DDS SETTINGS ADMIN

Remote Diagnostic System

All Real Time Signals

- Speed
- Panto
- VCB
- VCAT
- VBAT
- TE/BE
- Loco Brake
- Auto Brake
- Parking Brake
- FUG Node
- Primary Current
- Primary Voltage
- Input Power
- Line Frequency
- TE/BE Actual
- SUB1 Node
- SUB2 Node
- AUG1 Node
- AUG2 Node
- Input Contactor SR1
- Input Contactor SR2
- Pre Charging Contactor SR1
- Pre Charging Contactor SR2
- Oil Pressure SR1
- Oil Pressure SR2
- Oil Temperature SR1
- Oil Temperature SR2
- Ventilation Level SR1
- Ventilation Level SR2
- DC Link Voltage SR1
- DC Link Voltage SR2
- Speed Rogie-1 TM1

Selected Real Time Signals

Loco Brake

Auto Brake

SELECT ANY 7 REAL TIME DATA

FILTER

Filter Export To What's New

Loco: Type: Shed:

AL ALL AL

From: To:

Latest DDS Alerts

park brake

Legend Downloads

- Loco In Motion
- VCB Off
- Speed-0 kmph
- No Data For More Than 3 Hours

Checkbox

Button

Historic Data Page contains various real time signal checkboxes which when ticked, appears along with a filter button. It has filter button which on clicking gets redirected to **FILTER** page. Only 15 Real Time Signals can be selected from the checkbox at once. If more than 15 Signals are selected, error message is displayed - "MAXIMUM LIMIT EXCEEDED!!!!!!!!!!".

It also has Checkbox List which contains REAL TIME SIGNALS such as:

Speed	Panto	VCB	VCAT	VBAT	TE/BE
Loco Brake	Auto Brake	Parking Brake	FLG Node	Primary Current	Primary Voltage
Input Power	Line Frequency	TE/BE Actual	SLG1 Node	SLG2 Node	ALG1 Node
ALG2 Node	Input Contactor SR1	Input Contactor SR2	Pre Charging Contactor SR1	Pre Charging Contactor SR2	Oil Pressure SR1
Oil Pressure SR2	DC Link Voltage SR1	Oil Temperature SR1	Oil Temperature SR2	Ventilation Level SR1	Compressor1
Speed Bogie-1 TM1	DC Link Voltage SR2	Speed Bogie-1 TM2	Speed Bogie-1 TM3	Ventilation Level SR2	Compressor2
Speed Bogie-2 TM1	Speed Bogie-2 TM2	Speed Bogie-2 TM3	Temperature Bogie-1 TM3	Temperature Bogie-1 TM1	BUR Status BUR1
Aux. Voltage	Aux. Current	DC Link Voltage BUR1	Temperature Bogie-2 TM1	Temperature Bogie-1 TM2	BURStatusBUR2
Output Current BUR1	Grouping 52/1	DC Link Voltage BUR2	Temperature Bogie-2 TM2	Traction Motor Blower1	BURStatusBUR3
Output Current BUR2	Grouping 52/2	DC Link Voltage BUR3	Temperature Bogie-2 TM3	Traction Motor Blower2	ActiveCAB
Output Current BUR3	Grouping 52/3	DC Link Current BUR1	Converter Oil Pump SR1	Machine Room Blower1	Direction
Output Voltage BUR1	Grouping 52/4	DC Link Current BUR2	Converter Oil Pump SR2	Machine Room Blower2	Constant Speed
Output Voltage BUR2	Grouping 52/5	DC Link Current BUR3	Transformer Oil Pump1	Transformer Oil Temperature TR1	Vigilance Brake
Output Voltage BUR3	ThrottlePosition	TE_Demand(Boolean)	Transformer Oil Pump2	Transformer Oil Temperature TR2	S/W VER_HBB2
Oil Cooling Blower1	AngleTransmitter	BE_Demand(Boolean)	PneumaticBrakeDemand	Transformer Oil Pressure SR1	S/W VER_STB1
Oil Cooling Blower2	Scavenge Blower MR1	Scavenge Blower TM1	BP Pressure Demand	Transformer Oil Pressure SR2	S/W VER_STB2
TE/BE_Dem_1/3	Scavenge Blower MR2	Scavenge Blower TM2	Energy Regenerated	S/W VER_FLG2	S/W VER_SLG1
TE/BE_Dem_2/3	MR Pressure	Energy Consumed	S/W VER_FLG1	S/W VER_HBB1	S/W VER_SLG2

3.4 DDS PAGE

Indian Railways Fleet Monitoring

HOME MAP VIEW REAL TIME DATA HISTORIC DATA **DDS** SETTINGS ADMIN

Remote Diagnostic System - Diagnostic Data Set(DDS)

Sl.No	Status	Loco	Type	Shed	IST Date	IST Time	DDS Ref	DDS Information	View All
1	●	30205	WAP-7	HWH	07-04-2014	09:04:07	2558	FLG1:0091-Power on of MCE	Click
2	●	30206	WAP-7	BIA	21-07-2014	19:19:25	4241	ASC2:0052-Error tachogenerator 1	Click
3	●	30237	WAP-7	LGD	21-07-2011	13:56:21	1828	BUR3:0016-Bat. charge current below 10A	Click
4	●	30239	WAP-7	LGD	21-07-2014	00:27:07	1695	NSC1:0080-Error PS hardware	Click
5	●	30240	WAP-7	LGD	22-07-2014	10:24:26	3385	ASC2:0054-Error tachogenerator 3	Click
6	●	30243	WAP-7	GZB	10-03-2014	03:56:32	2848	FLG1:0035-S/R Interlock - loco brake	Click
7	●	30250	WAP-7	LGD	28-06-2014	13:24:28	6477	NSC1:0080-Error PS hardware	Click
8	●	30252	WAP-7	GZB	22-07-2014	11:11:52	5079	FLG1:0091-Power on of MCE	Click
9	●	30253	WAP-7	LGD	14-05-2014	18:27:26	3016	FLG1:0040-S/R Interlock - main res. low	Click
10	●	30254	WAP-7	GZB	22-07-2014	06:38:38	4297	FLG1:0094-SS02 traction bogie1 off	Click
11	●	30256	WAP-7	GZB	08-05-2014	16:01:03	3141	FLG1:0117-Power off of MCE	Click
12	●	30258	WAP-7	LGD	17-07-2014	23:39:51	3309	FLG1:0019-Emergency brake pressure sw.	Click
13	●	30259	WAP-7	LGD	18-07-2014	14:16:54	3434	FLG1:0039-S/R Interlock - emgbk out	Click
14	●	30260	WAP-7	LGD	22-07-2014	08:32:37	3545	FLG1:0035-S/R Interlock - loco brake	Click
15	●	30261	WAP-7	LGD	07-07-2014	07:38:53	3998	ASC2:0052-Error tachogenerator 1	Click
16	●	30262	WAP-7	LGD	27-06-2014	20:56:30	4093	NSC1:0080-Error PS hardware	Click
17	●	30263	WAP-7	AQ	25-06-2014	11:17:14	4691	FLG1:0091-Power on of MCE	Click
18	●	30264	WAP-7	AQ	22-07-2014	11:14:36	3547	FLG1:0091-Power on of MCE	Click
19	●	30271	WAP-7	LGD	22-07-2014	11:40:11	1943	FLG1:0091-Power on of MCE	Click
20	●	30272	WAP-7	LGD	01-01-1970	00:00:00	713	BUR2:0020-Bat. charge current below 10A	Click

Filter Export To What's New

Loco: Type: Shed:

From: To:

Latest DDS Alerts

- MCE
- 30264 FLG1:0091-Power on of MCE
- 30262 FLG1:0091-Power on of MCE
- 30274 FLG1:0037-S/R Interlock -

Legend Downloads

- Loco in Motion
- VCB Off
- Speed-0 kmph
- No Data For More Than 3 Hours

Designed & Maintained by Advanced Rail Control Pvt. Ltd.

Click To View All DDS of A Single Loco

DDS page displays the latest fault messages of each loco.

GLOBAL HITLIST PAGE

Indian Railways Fleet Monitoring

HOME MAP VIEW REAL TIME DATA HISTORIC DATA DDS SETTINGS ADMIN

Remote Diagnostic System - Global Hitlist

Sl.No	DDS Information	Number Of Occurrence
1	FLG1:0092-ACP/Train Part	4234
2	FLG1:0091-Power on of MCE	3245
3	FLG1:0117-Power off of MCE	2965
4	FLG1:0040-S/R Interlock - main res. low	1442
5	FLG1:0097-S/R Interlock - brake cock	745
6	SUG1:0072-Power reduction conv. temp.	698
7	FLG1:0087-Dist. one trafo oil circuit	690
8	FLG1:0036-S/R Interlock - auto brake	679
9	SUG1:0070-Power reduction line voltage	667
10	FLG1:0019-Emergency brake pressure sw.	543
11	FLG1:0018-Emergency stop - shutdown	421
12	FLG1:0020-Emergency brake vigilance	417
13	FLG1:0035-S/R Interlock - loco brake	406
14	SUG2:0018-Pressure oil trafo not okay	396
15	HBB1:0014-Earth fault filter circuit	368
16	SUG1:0020-Primary voltage < minimum	336
17	SUG2:0020-Primary voltage < minimum	321
18	FLG1:0038-S/R Interlock - park brake	266
19	FLG1:0024-MCE off - pen was down 10 min	238
20	STRT:0013-Transformer pump 1 AMP open	124

Filter Export To What's New

Loco: Type: Shed:

From: To:

Latest DDS Alerts

Legend Downloads

- Loco In Motion
- VCB Off
- Speed=0 kmph
- No Data For More Than 3 Hours

Design and maintain ed by [Advanced Rail Control Pvt. Ltd.](#)

Global Hitlist Page displays number of occurrences of each DDS information of all the locos.

DDS DATA PAGE

Indian Railways Fleet Monitoring

HOME MAP VIEW REAL TIME DATA HISTORIC DATA **DDS** SETTINGS ADMIN

Remote Diagnostic System - Diagnostic Data Set(DDS)

Sl.No	Loco	Type	Shed	DDS Date	DDS Time	IST Date	IST Time	DDS Ref	DDS Information
1	30206	WAP-7	BIA	22-Jul-2014	00:49:25	21-07-2014	19:19:25	4241	ASC2:0052-Error tachogenerator 1
2	30206	WAP-7	BIA	22-Jul-2014	00:21:08	21-07-2014	18:31:08	4240	ASC2:0052-Error tachogenerator 1
3	30206	WAP-7	BIA	22-Jul-2014	00:12:22	21-07-2014	18:42:22	4239	ASC2:0052-Error tachogenerator 1
4	30206	WAP-7	BIA	21-Jul-2014	23:41:42	21-07-2014	18:11:42	4238	SLG1:0070-Power reduction line voltage
5	30206	WAP-7	BIA	21-Jul-2014	23:36:34	21-07-2014	18:06:34	4237	SLG1:0070-Power reduction line voltage
6	30206	WAP-7	BIA	21-Jul-2014	22:28:05	21-07-2014	16:38:05	4236	SLG1:0070-Power reduction line voltage
7	30206	WAP-7	BIA	21-Jul-2014	21:08:08	21-07-2014	15:36:08	4235	FLG1:0085-S/R Interlock - loco brake
8	30206	WAP-7	BIA	21-Jul-2014	19:21:35	21-07-2014	07:51:35	4234	FLG1:0081-Power on of MCE
9	30206	WAP-7	BIA	21-Jul-2014	12:30:42	21-07-2014	07:00:42	4233	FLG1:0117-Power off of MCE
10	30206	WAP-7	BIA	1-Jan-1970	05:30:00	01-01-1970	00:00:00	4232	SLG1:0070-Power reduction line voltage
11	30206	WAP-7	BIA	21-Jul-2014	11:47:36	21-07-2014	06:17:36	4231	SLG1:0070-Power reduction line voltage
12	30206	WAP-7	BIA	21-Jul-2014	11:41:10	21-07-2014	06:11:10	4230	ASC2:0052-Error tachogenerator 1
13	30206	WAP-7	BIA	1-Jan-1970	05:30:00	01-01-1970	00:00:00	4229	SLG1:0070-Power reduction line voltage
14	30206	WAP-7	BIA	21-Jul-2014	11:06:19	21-07-2014	05:36:19	4228	SLG1:0070-Power reduction line voltage
15	30206	WAP-7	BIA	21-Jul-2014	11:01:47	21-07-2014	05:31:47	4227	SLG1:0070-Power reduction line voltage
16	30206	WAP-7	BIA	1-Jan-1970	05:30:00	01-01-1970	00:00:00	4226	SLG1:0070-Power reduction line voltage
17	30206	WAP-7	BIA	21-Jul-2014	10:49:21	21-07-2014	05:19:21	4225	SLG1:0070-Power reduction line voltage
18	30206	WAP-7	BIA	1-Jan-1970	05:30:00	01-01-1970	00:00:00	4224	SLG1:0070-Power reduction line voltage
19	30206	WAP-7	BIA	21-Jul-2014	10:42:12	21-07-2014	05:12:12	4223	SLG1:0070-Power reduction line voltage
20	30206	WAP-7	BIA	21-Jul-2014	10:38:41	21-07-2014	05:08:41	4222	SLG1:0070-Power reduction line voltage

Annotations:

- Datepicker Textbox
- Click This to Reset Dates
- Click To View the Background Data of Respective DDS Message

Designed & Maintained by: [Advanced Rail Control Pvt. Ltd.](#)

DDS Data Page provides all the fault messages of a particular Loco. It contains Hitlist link. This can be viewed on mouse over the DDS link.

FILTER panel of first tab contains Drop down lists: Proc Name and DDS Message. Processor Dropdown List loads the processors from the database and Message Dropdown List loads the DDS messages from the database

BACKGROUND DATA PAGE

Remote Diagnostic System

SI.No	Loco	Type	Shed	DDS
1	31026	WAG-9	GMO	22-Jul
2	31026	WAG-9	GMO	22-Jul
3	31026	WAG-9	GMO	22-Jul
4	31026	WAG-9	GMO	22-Jul
5	31026	WAG-9	GMO	22-Jul
6	31026	WAG-9	GMO	22-Jul
7	31026	WAG-9	GMO	22-Jul
8	31026	WAG-9	GMO	22-Jul

Word Number	Byte Number	Signal Description	Value	Signal Name
1	0	Cab 1 activated	0	FLGM_UMF1-MCab1Active
1	1	Cab 2 activated	1	FLGM_UMF1-MCab2Active
1	2	Command Panto up	1	FLGM_UMF1-LPanUpWish
1	3	Command Panto down	0	FLGM_UMF1-LPanDnWish
1	4	Status VCB closed	1	FLGM_UMF1-32-MVCB-On
1	5	Word UMF1 Bit6	0	FLG1_UMF1-6
1	6	Emergency stop pressed	0	FLGM_UMF1-MEmgStopShDn
1	7	Status Pressure swtch EmergBrk	0	FLGM_UMF1-PrSwEmgBk
1	8	Status Driving forward	0	FLGM_UMF1-BDrivDirec1
1	9	Status Driving reverse	1	FLGM_UMF1-BDrivDirec2
1	10	Status Hotel load on	0	FLGM_UMF1-MContHotel
1	11	Status Start/running interlock	0	FLGM_UMF1-MSRIntrLoc
1	12	Status const speed ctrl active	0	FLGM_UMF1-BSpeedConOn

Background Data Page contains Background data of the corresponding Reference number clicked in DDS Data page.

It has three Image buttons: PDF button which when clicked downloads the file in pdf format, WORD button which when clicked downloads the file in word format, EXCEL button which when clicked downloads the file in excel format.

SETTINGS

The screenshot displays the 'Indian Railways Fleet Monitoring' dashboard. At the top, there is a navigation bar with links for HOME, MAP VIEW, REAL TIME DATA, HISTORIC DATA, DDS, SETTINGS, and ADMIN. The main content area is titled 'Remote Diagnostic System' and contains a table with 20 rows of locomotive data. To the right of the table, there is a 'Settings Options' menu with a 'PERSONALIZE' button. This menu includes options for THEMES (SHATADI BLUE, DURONTO GREEN, BLACK DIAMOND), LOGOUT, and a 'Latest DDS Alerts' section. A legend and download section are also visible.

SL.No	Status	Loco	Type	Shed	Date	Time	Panto	VCB	Speed	VCAT (kV)	VBAT (Volts)	TE/BE (kN)	Iso	Nearest Station	Map
1	●	30205	WAP-7	HWH	08-04-14	14:32:08	UP	OFF	0	25	99	0	NO	Litloh	Click
2	●	30206	WAP-7	BIA	02-07-14	22:38:37	UP	ON	0	26	110	0	NO	Rajgarh	Click
3	●	30237	WAP-7	USD	28-06-14	04:36:01	UP	ON	0	25	111	0	NO	Vijaywada	Click
4	●	30239	WAP-7	USD	28-06-14	14:56:34	DOWN	OFF	0	0	0	0	NO	Lalaguda	Click
5	●	30240	WAP-7	USD	28-06-14	15:42:19	UP	ON	0	22	110	0	NO	Heart Nizamuddin	Click
6	●	30248	WAP-7	GZB	02-07-14	22:40:45	UP	ON	15	26	111	20	NO	Godhra	Click
7	●	30250	WAP-7	USD	28-06-14	12:36:37	DOWN	OFF	0	0	0	0	NO	Secunderabad	Click
8	●	30252	WAP-7	GZB	02-07-14	22:41:23	UP	ON	0	24	110	0	NO	Sealdah Main	Click
9	●	30253	WAP-7	USD	04-06-14	22:28:58	UP	ON	110	26	110	67	NO	Pindri	Click
10	●	30254	WAP-7	GZB	12-06-14	12:41:05	DOWN	OFF	0	0	0	0	NO	Mughal Sarai	Click
11	●	30256	WAP-7	GZB	02-07-14	22:41:14	UP	ON	112	24	111	56	NO	Sath Nahani	Click
12	●	30258	WAP-7	USD	20-06-14	15:42:48	DOWN	OFF	0	0	0	0	NO	Chennai Central	Click
13	●	30259	WAP-7	USD	02-07-14	22:39:48	UP	ON	105	26	121	77	NO	Rajgir	Click
14	●	30260	WAP-7	USD	02-07-14	22:40:07	UP	ON	65	25	121	-101	NO	Rayanapadu	Click
15	●	30261	WAP-7	USD	02-07-14	22:35:55	UP	ON	0	24	109	0	NO	Malkajgiri	Click
16	●	30262	WAP-7	USD	20-06-14	15:41:54	UP	ON	44	25	110	-50	NO	Motumari	Click
17	●	30263	WAP-7	AQ	28-06-14	15:21:12	DOWN	OFF	0	0	99	0	NO	New Delhi	Click
18	●	30264	WAP-7	AQ	02-07-14	22:34:46	UP	ON	118	24	110	-11	NO	Durgam Chouk	Click
19	●	30271	WAP-7	USD	02-07-14	22:30:36	DOWN	OFF	0	0	0	0	NO	Sumer	Click
20	●	30272	WAP-7	USD	28-06-14	15:41:26	UP	ON	89	24	112	0	NO	Chitoda	Click

Settings Options

Settings link provides options to customize personal settings, change themes and to logout.

4.0 DRIVER DISPLAY

The DDU is a man machine interface device able to communicate with locomotive control system through MVB. The LED backlit 10.4” SVGA LCD screen provides better readability even during daylight conditions, thanks to brightness control. The DDU has various pre-defined screens which can be used for investigative monitoring. The display is touch screen based along with which hard keys are also provided as redundant navigation option.

The driver normally uses the default screen while driving, even though, he can navigate to any other investigative screens, if required. Below is the default screen for RMS DDU. There are two version of default screen which can switched by clicking on the “RMS = DDU” button given at the top right corner. Once clicked a new default screen will get displayed. Both screen layout are as given below

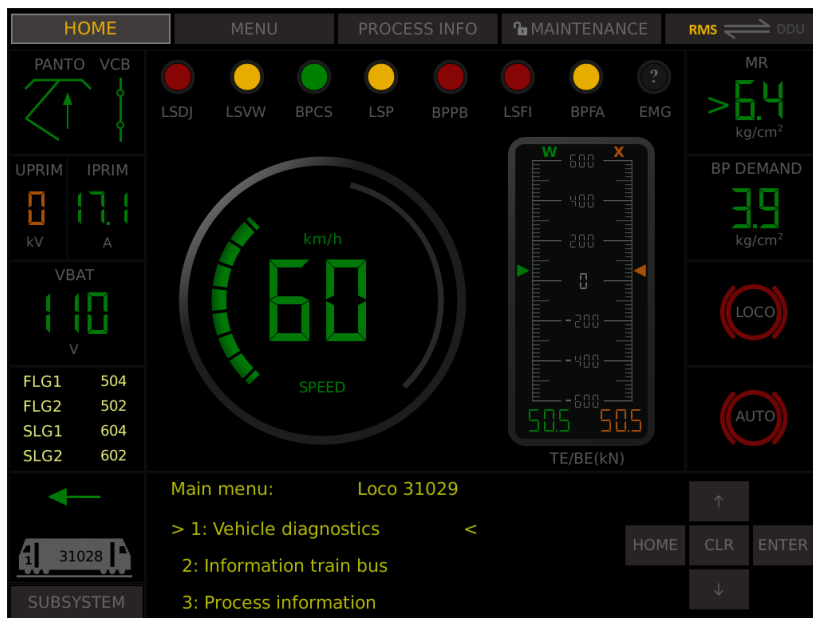


FIG1: Screen 1: Default RMS DDU screen



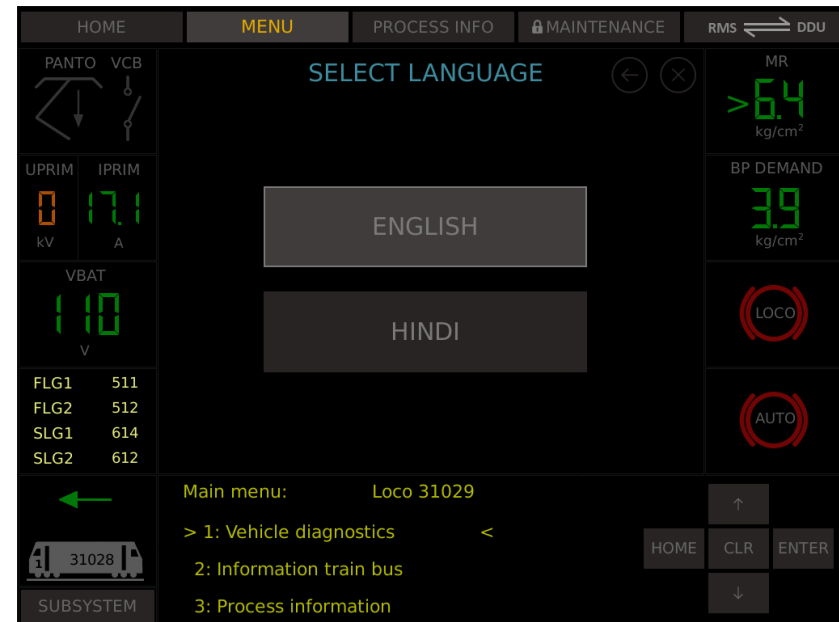
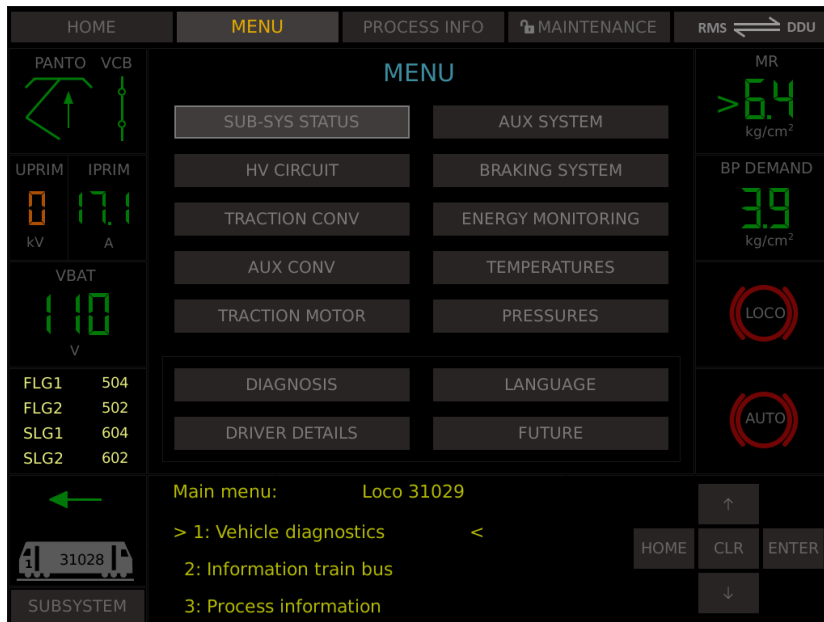
Fig2: Screen2: Configurable Default screen

There are 5 soft keys provided in the default screen for using deferent features of DDU. They are;

- 1.HOME
- 2. MENU
- 3. PROCESS INFO
- 4. MAINTENANCE
- 5. RMS = DDU

MENU SCREEN

In the Menu screen user can view many numbers of real time parameters which are divided in 10 sub screens, viz, SUB SYS STATUS, HV CIRCUIT, TRACTION CONV, AUX CONV, TRACTION MOTOR, AUX, SYSTEM, BRAKING SYSTEM, ENERGY MONITORING, TEMPARATURES and PRESSURES. There is a language selection screen also. **(Now user can access DDU in HINDI language).**

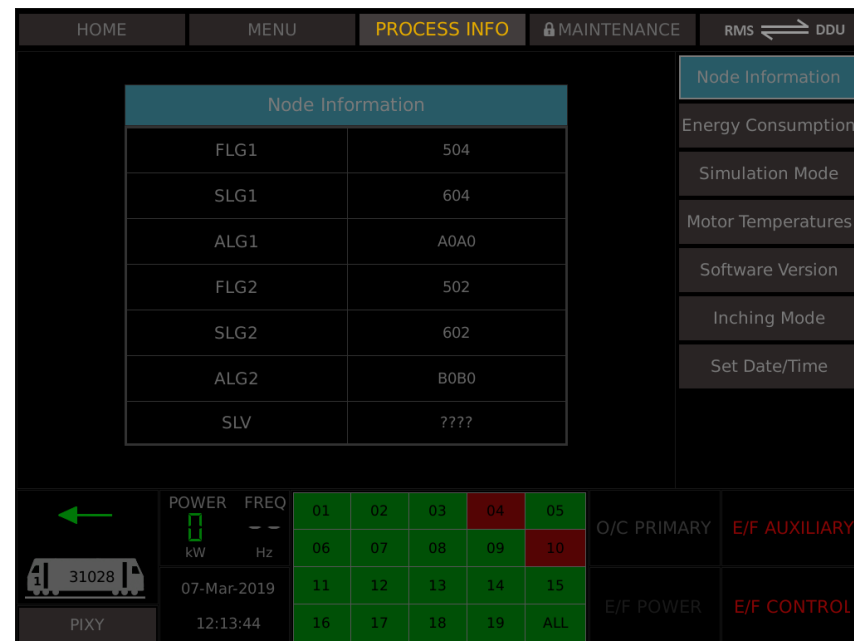
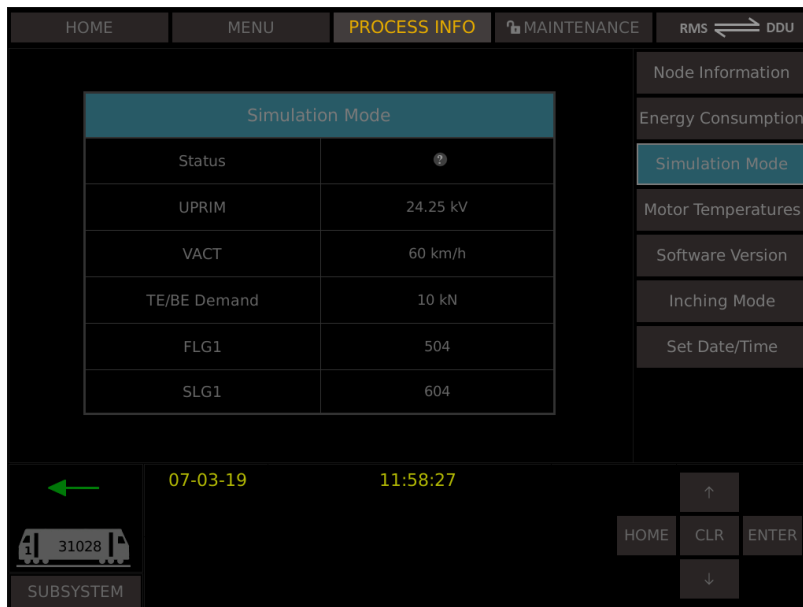


DRIVER DETAILS and FUTURE tabs are for future provision. There is a DIAGNOSIS screen in which all the DDS details are given. In this screen either the LP or the shed official can go through all the DDS message along with the symptom, causes and advice to solve the issue.

PROCESS INFO

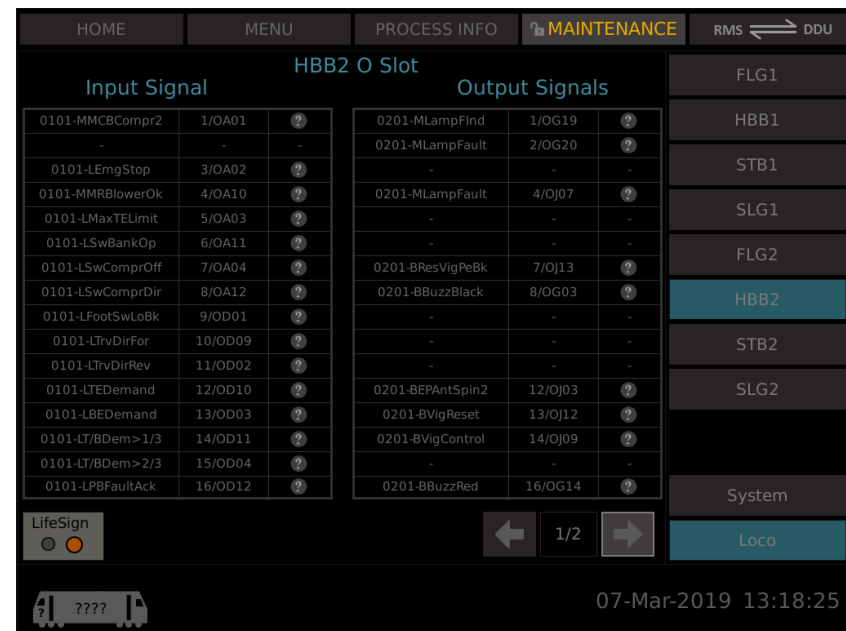
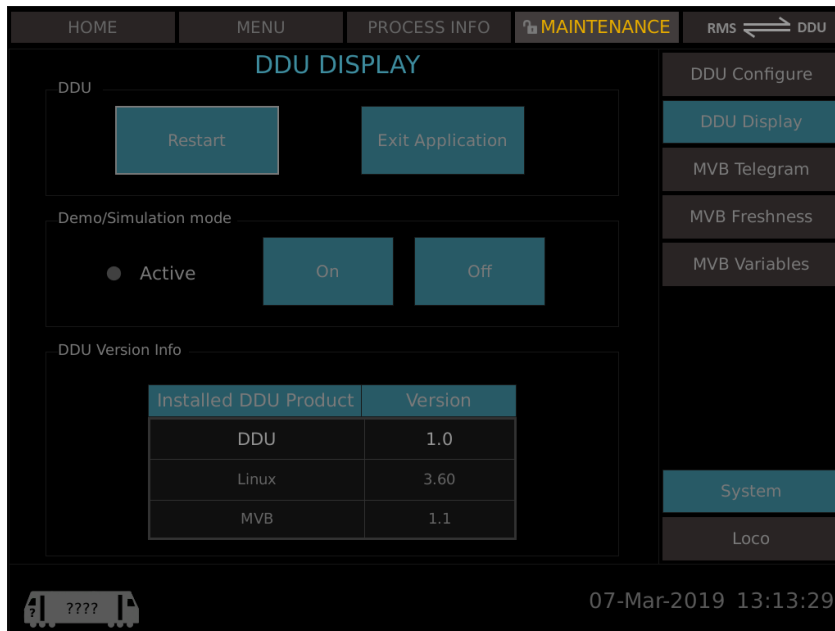
Process Info tab is equivalent if PROCESS INFORMATION screen of PIXY. If by any means DDA card fails or serial channel of DDU fails, LP will have alternative solution to see the process info parameters in this screen. PROCESS INFO screen has seven sub-screens, viz, NODE INFORMATION, ENERGY CONSUMPTION, SIMULATION MODE, MOTOR TEMPARATURES, SOFTWARE VERSION, INCHING MODE and SET DATE/TIME.

Node Info and simulation mode screens are shown below;



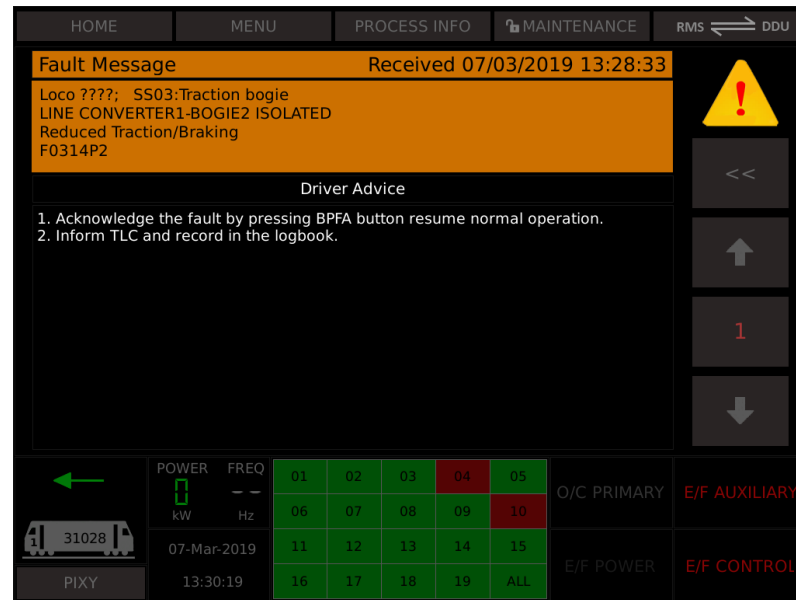
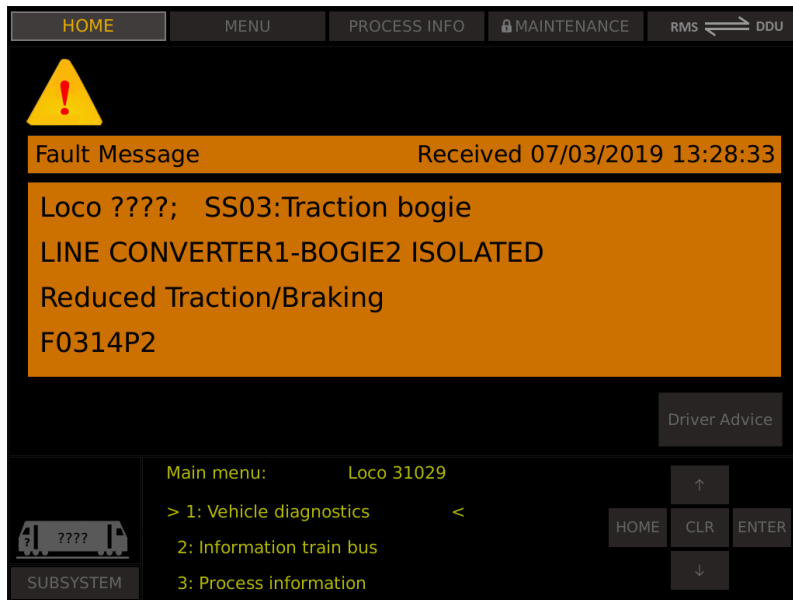
MAINTENANCE

Maintenance has 2 main sub-screens. i.e, SYSTEM and LOCO. System has five more sub-screens. They are DDU CONFIGURE, DDU DISPLAY, MVB TELEGRAM, MVB FRESHNESS and MVB VARIABLES. Loco tab has eight sub-screens, i.e, FLG1, HBB1, STB1, SLG1, FLG2, HBB2, STB2 and SLG2. All processor screens shows the IO signals. Boolean signals are indicated by LEDs and Analog signals are with the Values.



FAULT

Whenever a fault comes in the loco Fault along with driver advice gets popped up on the screen. An example fault screen can be seen below.



***Note : The Display is configurable. The Default screen will be as shown in Fig1(without pixy screen). PIXY portion disabled in the RMS Display as there is no RS422 connection between and RMS DDU and VCU.**