

1. “Coach Repair & Maintenance System” (CRMS)

Coaching Depot Jaipur is having a holding of 625 coaches, 31 rakes and 21 trains for Primary Maintenance. Zero deficiency of coach interior items specially pertaining to passenger amenities & fittings has been target of every IR coaching depot. In previous system, deficiency of passenger amenities & fittings noticed by inspecting official is reported delayed by one or two weeks from date of inspection to concerned Rake Maintenance Incharge through inspection note. Rake Maintenance Incharge also used to notice the deficiency while examination/maintenance of rake on washing line and attended the same day subject to availability of deficient items in stock.

To overcome such delays in attending passenger amenity items and enabling effective monitoring and smooth maintenance, a software “**Coach Repair Maintenance System” (CRMS)**” costing Rs.69,000 has been developed from local agencies for prompt communication to Rake Maintenance Incharge.

Salient Features:-

A) Technical:

- ❖ Network based application developed in visual basic 6.0 as front end and SQL server back end.
- ❖ Access data from a centralized dedicated server based at DRM (C&W) Office Jaipur with Railnet static IP.
- ❖ Application installation in window XP SP3 or above.
- ❖ For use of third party crystal reports and getting data through ODBC file DSN.

B) Output.

- ❖ Comprehensive Data base containing Modules of Train master, coach master, rake master, item and problems.
- ❖ Application modules consist of two main modules viz “Inspection” & “Maintenance”
- ❖ **Separate User id and passwords** have been given to inspecting & maintenance personnels.
- ❖ Automatic SMS are delivered from system to Administrator (Sr.DME) and concerned SSE/JE of the rake immediate after inspection.

❖ Entry of rake deficiencies made in the inspection & Maintenance modules appear on **front screen** from where, rake in-charges pick up problem date wise, train rake wise, item wise, etc. for prompt attention. Maintenance module is having a sub module “problem solved” in which rake in-charge or his recorder can make entry of the deficiencies attended.

❖ User-friendly data entries i.e only action of pick up from the lists of data base of coaches, items, defects, trains, rakes etc. is needed. Other modules of software are “coach master”, “Train master”, rakes etc can be updated easily by recorder/staff of BG/RM.

❖ Generation of various reports viz date wise, user wise, rake wise, item wise etc to analyze of maintenance of rakes .

Inspection entries can also be made through mobile on “<http://spheresoftech.com/CRMS>” in case inspecting official is away from access of desktop.

The screenshot shows the 'Maintenance Front Screen' interface. At the top, there are filters for 'Item Types', 'Group', 'Sub Group', 'Train', 'Rake', and 'Coach'. Below these are search fields for 'Item *Keyword', 'Problem *Keyword', and 'Current Status'. A 'More Option' checkbox is also present. The main data is displayed in a table with columns: S.N, Inspection, Train, Coach /, Item Name, Problem, Days, Remark, Current Status, and Inspector. The table contains 11 rows of data, with row 8 highlighted in yellow. An 'EXPORT TO .xls' button is visible at the bottom right of the table area.

S.N	Inspection	Train	Coach /	Item Name	Problem	Days	Remark	Current Status	Inspector
5	13/02/2016	12968	14119 WGACCN	Compartment General Machine pocket	Deficient Carpentary	0	40 no.	NOT ATTENDED	SSEDG
6	13/02/2016	12968	14119 WGACCN	Lav area seat 1 side General compartment door closer	Defective Carpentary	0		NOT ATTENDED	SSEDG
7	13/02/2016	12968	14119 WGACCN	General General Pest & Roden control	Not Working Contractor	0	cockroaches seen	NOT ATTENDED	SSEDG
8	13/02/2016	12968	05120 WGACCN	Lav area seat 1 side General Liquid Soap Container	Deficient Carpentary	0	T1 T2	NOT ATTENDED	SSEDG
9	13/02/2016	12968	05120 WGACCN	Compartment General Cleanliness	No Contractor	0	garbage near roda box	NOT ATTENDED	SSEDG
10	13/02/2016	12968	05120 WGACCN	Compartment General Window glass	Broken Carpentary	0	comptt door glass crack	NOT ATTENDED	SSEDG
11	13/02/2016	12968	05120			0		NOT	SSFDG
