Transnet Freight Rail Depot Dashboard Functional Specification

KPA Name(s)	Area Manager Expenditure
Project Name	KPI / Depot Dashboard Automation
Project Sponsor:	Dirk Nieuwoudt
Version:	1.0
Document Title:	Depot Dashboard Specification
Creation Date:	22 May 2009
Revision Date:	
Document Reference:	
Primary Author(s):	Lerato Miya
Co-Author(s):	KPI / Depot Dashboard Automation Team

1. INTRODUCTION

1.1. Overview

The automated dashboards will provide an electronic and summarised view of **leased vehicles costs** per Area Manager against operational budget which will enable management, to monitor and effectively measure the performance of their cost centres.

Cost centers are specifically defined accounting divisions of the organization that indicates where the responsibility areas that generate and influence costs are. They can be seen as the location where costs originate, because when costs are incurred, they must be assigned or posted to the appropriate cost objects.

The Leased Vehicles Performance Indicators (KPI) will be displayed per region, per cluster, per area manager with the ability to drill down to cost centre level

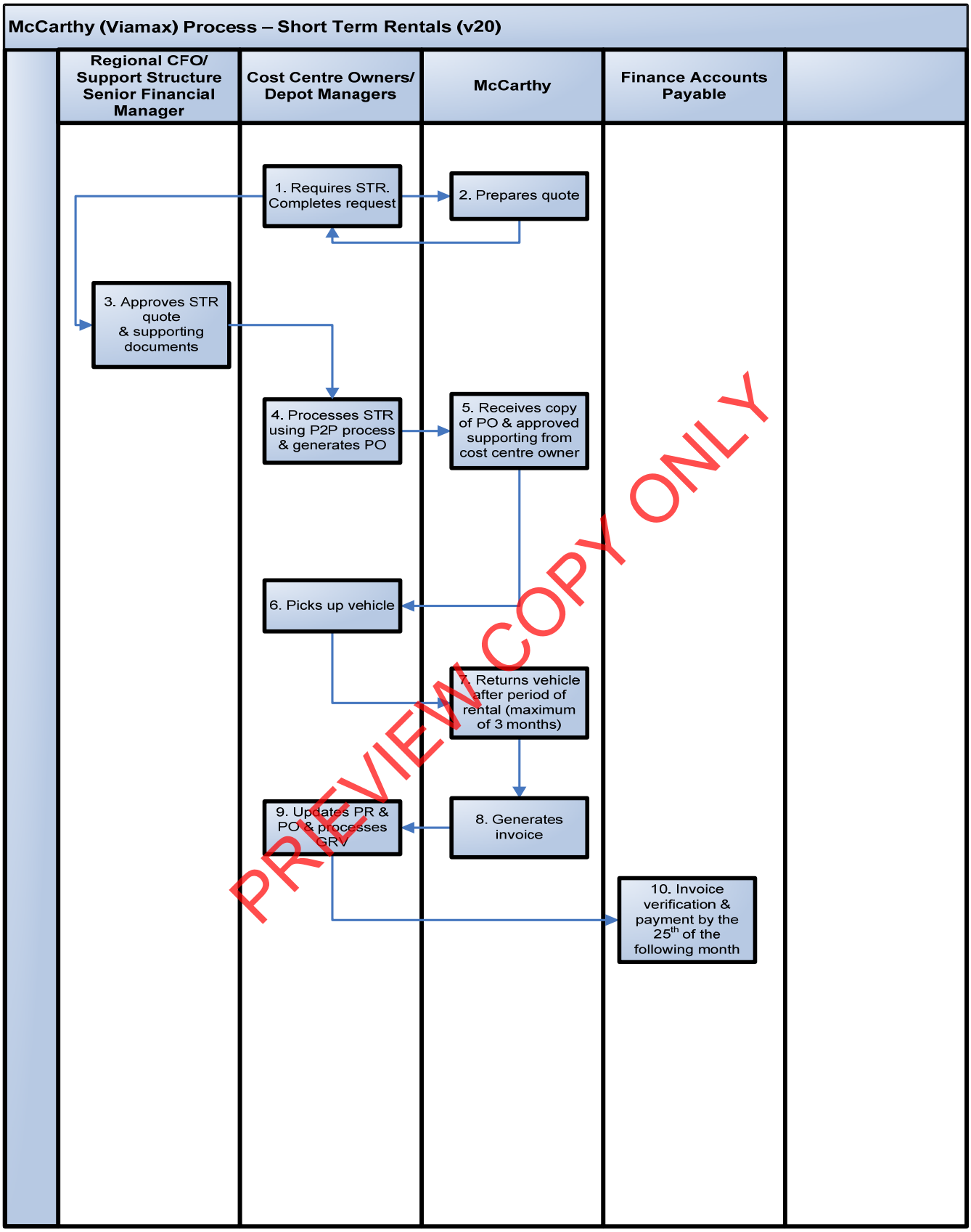
1.2. Risks

- Realigning the cost centres to correct department
- Integrity and Consistency of the leased vehicle information as it is received from McCarthy via e-mail on the 1st or 2nd of the every month. Currently the information is being processed by an individual and if that person is not available it means that the report won't be published.
- Information will be sent in a disc from McCarthy on a monthly basis this might compromise the security and confidentiality of the information.

BUSINESS SPECIFICATIONS FOR THE LEASED VEHICLES KPI DEPOT DASHBOARD AUTOMATION

1. Business Context

- Measurement of leased vehicles contract costs, kilometres travelled and accident costs
- Cost Centre Management Guidelines
- Linked to McCarthy (Viamax) Process Flow



2. Project Context

- Name: Business Specifications – KPI / Depot Dashboard Automation
- Purpose: Automate dashboards in use in region/areas - this is to provide management a view of the leased vehicles costs per cost centre structure.

3. KPI Definitions

3.1 Accident Costs

- Accident Costs are costs that involve the vehicles being damaged due to collision and they involve personnel and have an adverse effect on expenditure.
- This KPI measures the cost of overall accident costs incurred in the running of the business against the operational budget.

3.2 KM utilization

- Km utilization costs are the combination of the km opening and km closing costs. These costs can be adjusted based the contract. If the kilometres are below the agreement they can be decreased and if they are above they can be increased.
- This KPI measures KM travelled costs incurred in the running of the business against the operational budget.

3.3 Short term contract costs

- Short term contract costs are costs acquired for contracts that are for a short period of time. These costs also include access kilometres.
- These KPI measures short term contract costs incurred in the running of the business against the operational budget.

3.4 Non contractual costs/Operated defaults

- Operated defaults are costs accumulated due to reckless driving which damages the vehicle without causing an accident or when the vehicle is faulty from the manufacturing.
- These KPI measures abuse costs incurred in the running of the business against the operational budget.

3.5 Penalty costs

- Penalty costs are costs that are acquired due to the vehicle being returned after the contract expiry date or when a vehicle has been booked for a shorter period but used for a longer period.
- If the leased vehicle's contract has expired without the new vehicle being provided (to TFR) then the penalties falls away but this is only applicable if a new vehicle was booked 3 months prior to the contract expiry date
- These KPI measures penalty costs incurred in the running of the business against the operational budget.

3.6 Fuel Costs

- This KPI measures fuel costs acquired per kilometre in the running of the business against the operational budget and compared to the previous periods

4. Measure Context

- Feed to / feed from:

- Data is extracted from FTP server and stored into the Data Warehouse

- Leased Vehicles Costs are currently reported in the following dashboards:

- Transnet Exco (TFR input into the Transnet workbook)
- Transnet Executive Dashboard
- Transnet Freight Rail Exco
- Transnet Freight Rail Opco
- ROE Monthly Meetings
- APM Monthly Meetings
- Area Monthly Meetings

5. Data Description

- Source systems

  Data is received from McCarthy as an flat file into FTP server and interfaced into the Data Warehouse for reporting purpose and dashboard publication.

- Data flow model:

  (Will be confirmed)

- Components of the calculation required: N/A

6. Business Rules

Business rules are available on:

- Transnet Control Framework Document

7. Solution Requirements

- Minimum requirements:

- Dimensions / parameters: **1.** Operational structure; starting on cost centre, and aggregated to area, cluster, regional and TFR level; **2**. Types of leased vehicle costs: accident, km utilization etc
- Reporting periods: Monthly from the 26th previous month to 25th current month
- Graphics: Printable bar graphs – rolling 24 months

- Ability to navigate between levels i.e. region, cost centre, area etc
- Linked to other measures in the “Depot Dashboard”

- Additional requirements to optimise this solution:

- N/A

- Requirements to enable utilisation in the other dashboards that contains the measure / related measures:

- Addition of targets
- N/A

8. Solution Proposal

- Solution detail:

On the dashboard a link will be published “Leased Vehicles KPIs”. In order to access the KPI dashboard the user will have to log on to the TFR portal by providing a valid user name and password then the link to the dashboard will appear. After logging on successfully the main menu will be displayed with the applicable KPI list. For each KPI there is a parameter screen to be completed to generate a graph: **(Parameters are elaborated on point no.9)**

The user will click on the preferred KPI then the selection parameters for that KPI will be displayed which the user must complete to generate a bar graph. The graph must display a **24** months rolling view.

8.1 Dashboard Data Presentation:

- This will display various graphs of Leased Vehicles KPIs that impacts operational performance. The graphs will be displayed per Area Manager with a drill down functionality to cost centre level.

8.2 KPI / Depot Dashboard Automation will display as follows:
(Will be confirmed)

9. Parameters screen fields explained:

****Region** – On this parameter the user will select from the drop down list the region for the Area Manager to display the graph. If the user selects "All" then the consolidated information for all the regions will be displayed otherwise the information of the specific region will be displayed .e.g. Western, Eastern, Central and All.

****Cluster** -** On this parameter the user will select from the drop down list the cluster for the Area Manager. If the region is selected then the cluster(s) for that region will be available on the drop down list otherwise all clusters will be available on the drop down list.

****Area** -** On this parameter the user will select from the drop down list the area of the Area Manager. The selection of the area will reflect what is selected on the region and cluster parameters.

****Depot**** – This parameters does not apply on this reporting and so the functionality will be disabled.

****Cost Centre**** – On this parameter the user will select from the drop down list the cost centre for the Area Manager. The selection of the cost centre will reflect what is selected on the region, cluster, area and depot parameters.

****Leased Vehicle**** - On this parameter the user will select the vehicle registration number they want to view (DPH506MPOBC, ND53539 etc)

****Leased Vehicle Classification**** - On this parameter the user will select the leased vehicles costs they want to view (Km utilisation, Km costs or accident costs etc).

****Period From**** - (Default to current period) on this parameter the user will select a relevant period to enable execution of valid information. Depending on the display resolution selected then the calendar results will display the relevant period. If a user selects a month view then a 24 months rolling view graph will be displayed. The graph displayed will show 24 months information captured till the period stated on the "Period From" field**.** Period From should not be greater than Period To.

****Period To**** - (Default to current period) on this parameter the user will select relevant period to enable execution of valid information. When this field is completed then the 24 months rolling view graph will be displayed. The graph displayed will show 24 months information captured till the period stated on the Period to field**.**

****Display Resolution**** - On this parameter the user will select the month, quarter or year view. If the month is selected on the display resolution the calendar will display a 24months rolling view. If the quarter is selected then the calendar will display a 4 rolling quarters and if year is selected then the report will display previous years and expenditure vs current year expenditure.

****Monthly**** - Is calendar view of months only from January to December. April is the first month of the financial year.

****Quarterly**** - This parameter will display a quarterly view as follows:

Quarter1 = April – June

Quarter2 = July – September

Quarter3 = October – December

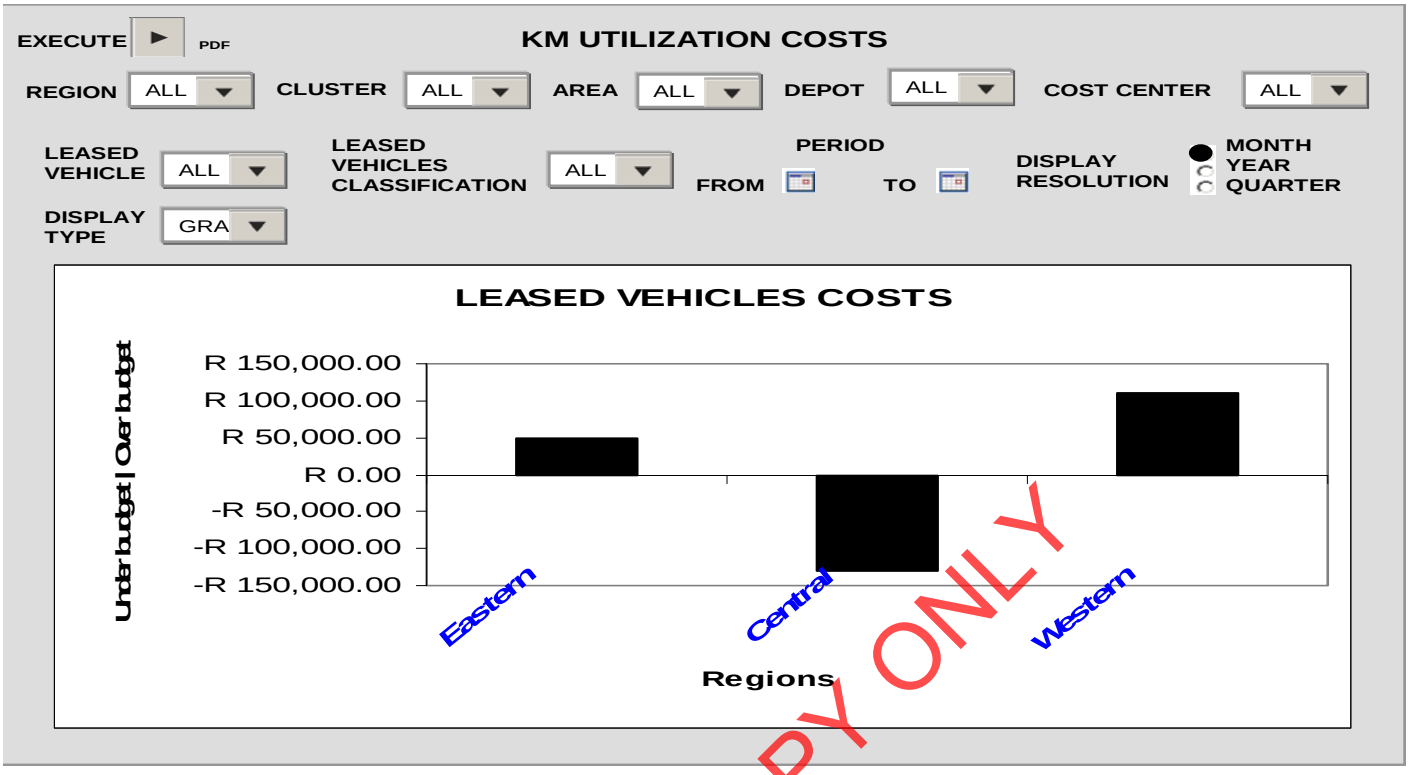
Quarter4 = January - March

****Yearly**** - This parameter will display a yearly view according to financial years..

****Display type**** - On this parameter the user will select the type of display they will like to see the information in. The user can select either graph or table. If table is selected then a table view will be displayed. If graph is selected then a graph view will be displayed.

****Execute**** - The user clicks this button to display the graph according to the selected parameter(s).

Once the user has selected a KPI and all the required parameters have been completed, the user will execute the dashboard **i.e.** km utilization costs for leased vehicles for a specific cost centre structure. **See bar graph examples below**:



The graph will provide a summarised view of all the Leased Vehicle Costs for all regions for two financial years in a detail display. To drill down to individual cost centres the user must select the cost centre, and state the “period from” and “period to” from the drop down list to display the graph. The bar graphs should display a 24 months rolling view till the specified period on the period to field.

EXECUTE PDF

KM UTILIZATION COSTS

REGION ALL CLUSTER ALL AREA ALL DEPOT ALL COST CENTER ALL

LEASED VEHICLE ALL LEASED VEHICLES CLASSIFICATION ALL PERIOD FROM TO DISPLAY RESOLUTION MONTH YEAR QUARTER

DISPLAY TYPE DET

REGION	KM UTILISATION COSTS Q1 07/08	CONTRACT COSTS Q1 07/08	ACCIDENT COSTS Q1 07/08	TOTAL COSTS Q1 07/08
EASTERN	R650,000.00	R150,000.00	R75,000.00	**R275,000.00**
CENTRAL	R730,000.00	R95,000.00	R63,000.00	**R888,000.00**
WESTERN	R590,000.00	R130,000.00	35,000.00	**R755,000.00**

The graph will provide a summarised view of the Km utilization costs on a monthly basis (rolling 24 months) for the selected regions. To drill down to an individual area the user must select the area, and state the “period from” and “period to” from the drop down list to display the graph. The bar graphs should display a 24 months rolling view till the specified period on the period to field.

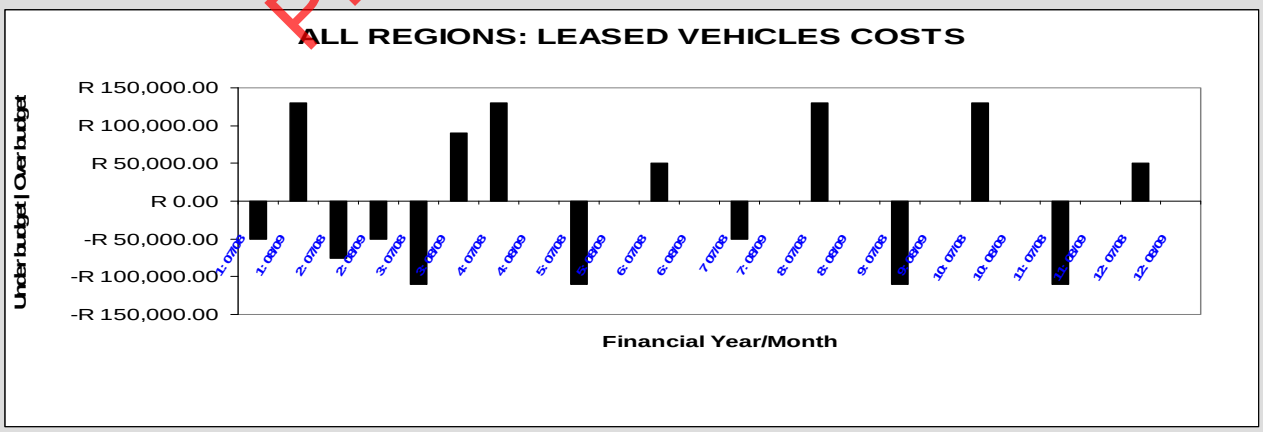
EXECUTE PDF

KM UTILIZATION COSTS

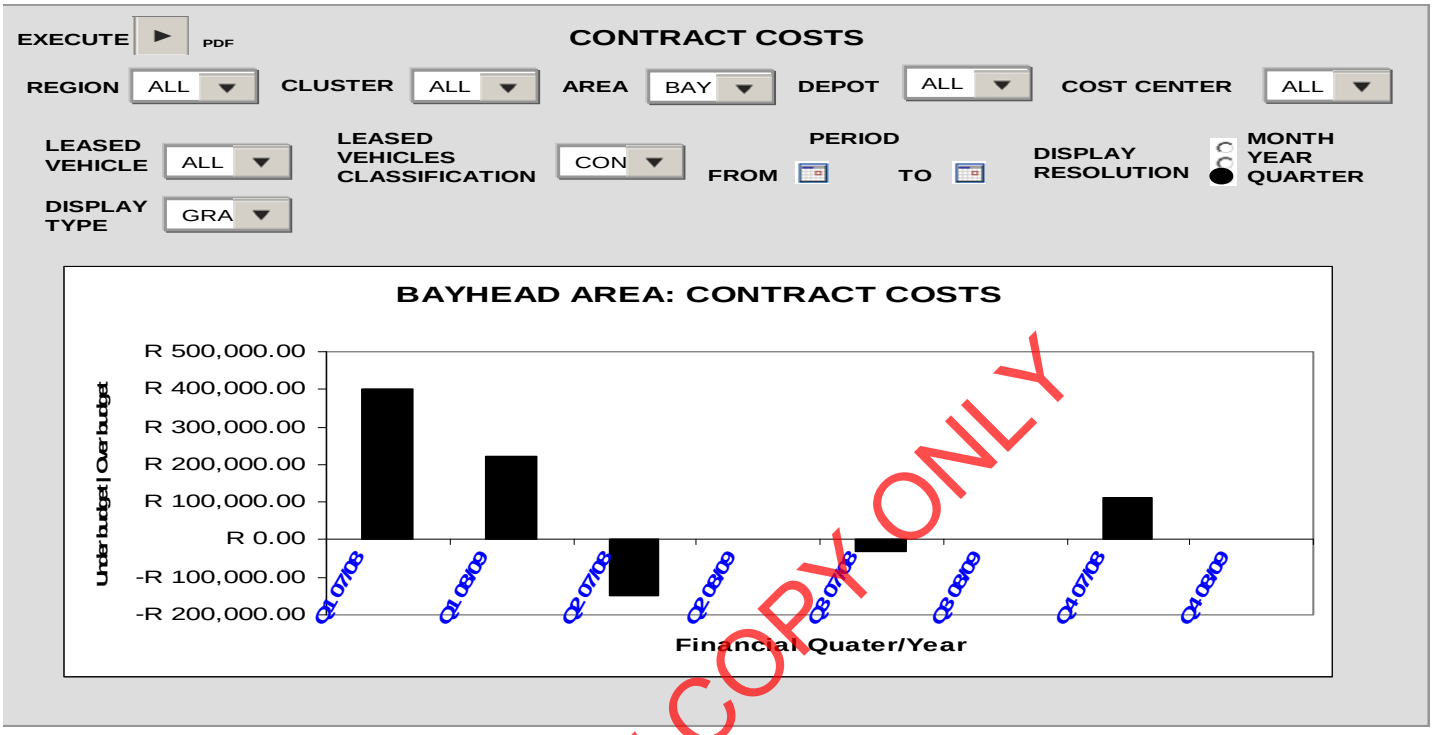
REGION ALL CLUSTER ALL AREA ALL DEPOT ALL COST CENTER ALL

LEASED VEHICLE ALL LEASED VEHICLES CLASSIFICATION ALL PERIOD FROM TO DISPLAY RESOLUTION MONTH YEAR QUARTER

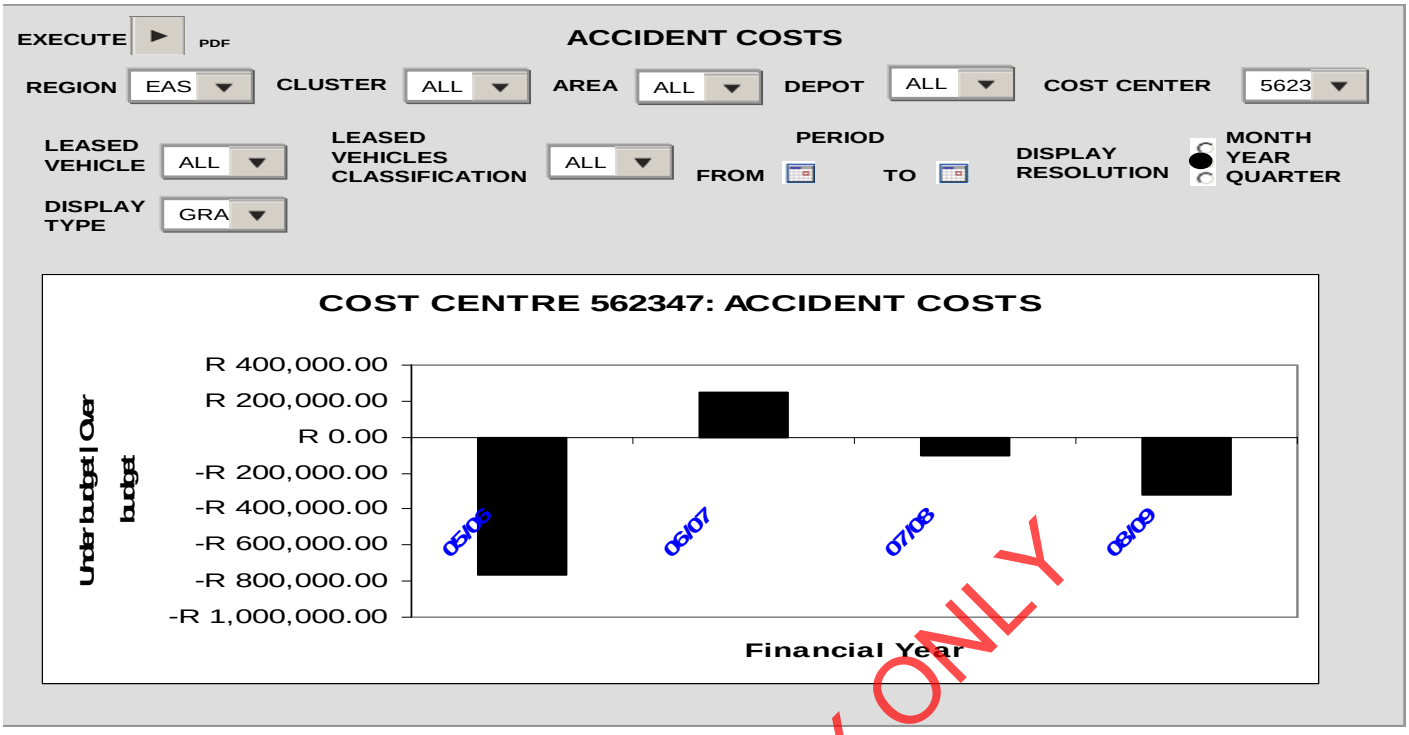
DISPLAY TYPE GRA



The graph will provide a summarised view of the Contract costs in a quarterly view for the selected area. To drill down to individual cost centres the user must select the cost centre, and state the “period from” and “period to” from the drop down list to display the graph. The bar graphs should display a 24 months rolling view till the specified period on the period to field.

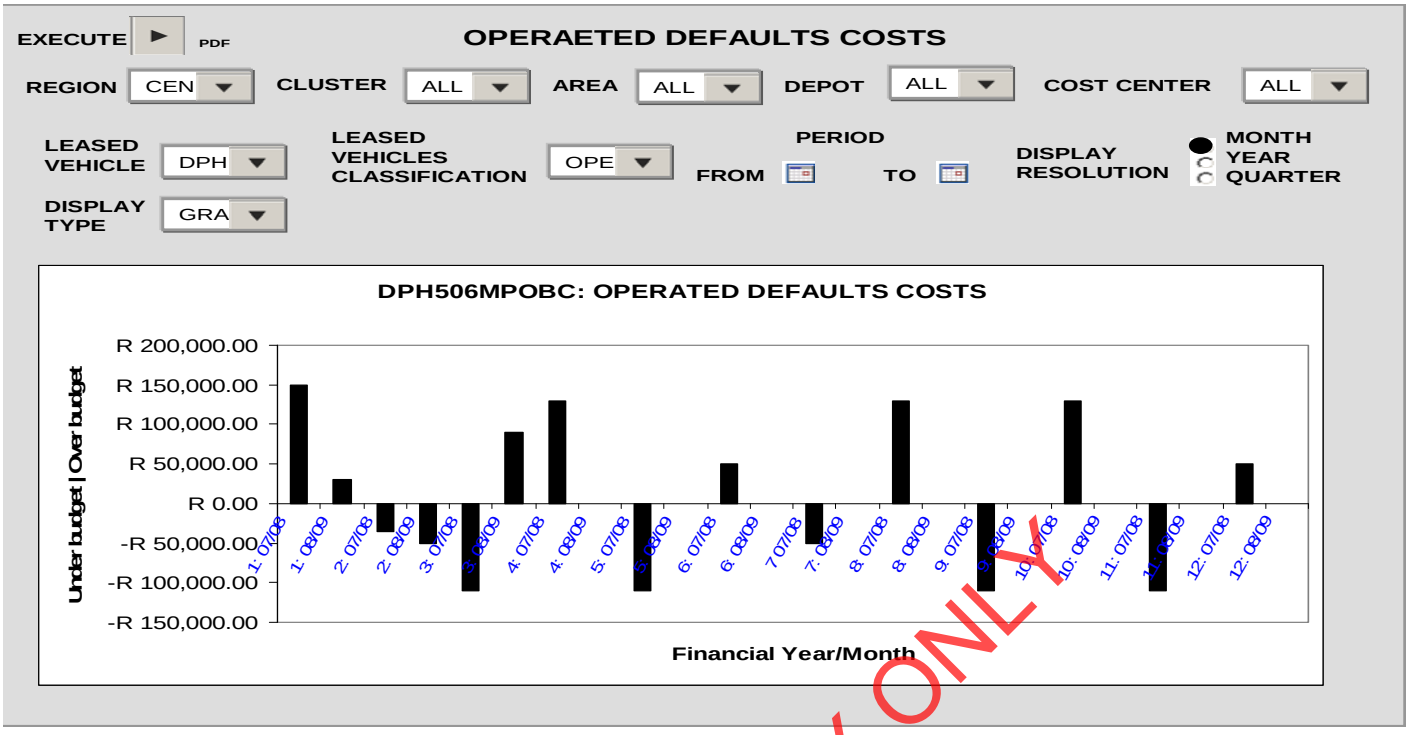


The graph will provide a summarised view of the Accident costs for financial year(s) on a yearly basis for the selected cost centre.



The graph will provide a summarised view of the Accident costs for financial year(s) on a yearly basis for the selected cost centre.

The graph will provide a summarised view of the operated defaults costs in a monthly view for the selected vehicle. The user must state the "period from" and "period to" from the drop down list to display the graph. The bar graphs should display a 24 months rolling view till the specified period on the period to field



The graph will provide a summarised view of operated defaults costs on a monthly basis for the selected leased vehicle.

Optional time periods to run the reports

- 12 months rolling view
- Simultaneous data requirements (from other projects / requests / applications)

- To explore expenditure against the operational budget allocated per Area Manager/cost centre group structure and measure the spending trends per individual cost centre.

- Minimum display requirement

- Bar graph

- Proposed approach (best way to solve current needs/issues)

- To be decided
- Consider doing budget evaluations on a monthly basis to ensure that the budget is in line with TFR as well as the department's budget guidelines.
- Enable swift Management action on exceeding budget per cost
- Centre structure/areas
- The McCarthy information should be sent as an FTP to TFR server to automate the dashboards.

Signatories	Role	Signature	Date	Accountability (I hereby declare that I have reviewed this document and it …)
	ICTM – Programme Management			… is within the scope of the project / programme as defined
Gerhard Bierman	Process Owner		11/7/09	… correctly defines the business context and measure … references the correct business processes … correctly describes related available data and source systems … identified the current utilisation of the measure
Steven Schubach	Process Owner		3/8/09	… correctly defines the business context and measure … references the correct business processes … correctly describes related available data and source systems … identified the current utilisation of the measure
Udesh Naicker	Process Owner	WITH RESERVATION	7/8/09	… correctly defines the business context and measure … references the correct business processes … correctly describes related available data and source systems … identified the current utilisation of the measure
	Functional MIS representative (where available)			co-sign with process owner and … designed the display such that it will fit with other dashboards
PIETER VAN NIEKERK	Performance Enablement		11/8/09	… the KPI definition is correct / have been added to the list of definitions … designed the display such that it will fit with other dashboards
Mark Snyders	ICTM – Portfolio Management			… complies with the standard and contains all the required and relevant content
Kesegan Nair	ICTM – Technical / Information Architecture			… provides sufficient information to develop the technical specifications from
Dirk Nieuwoudt	Sponsor		11/08/09	… addresses the business need as defined

TRANSNET

delivering on our commitment to you freight rail

Transnet Freight Rail Dashboard Functional Specification

KPA Name(s)	Asset Utilisation / Increasing Volumes
Project Name	Dashboard
Project Sponsor:	Dirk Nieuwoudt
Version:	3.0
Document Title:	Locomotives standing longer than **a selected number of** hours _V1
Creation Date:	03 March 2009
Revision Date:	
Document Reference:	
Primary Author(s):	André J. Ferreira (Monkey)
Co-Author(s):	

BUSINESS SPECIFICATIONS FOR LOCOMOTIVES STANDING LONGER THAN A SELECTED NUMBER OF HOURS / DEPOT DASHBOARD AUTOMATION

1. Business Context

- Measurement of locomotive utilisation through idle time i.e. locomotives standing longer than a selected number of hours at any location
- Linked to the *Capacity Management, Improve / Optimise, Monitoring & Control, Production Planning, Order Execution and Customer Interaction* (from value chain and L1 level) – **Specific locations to be confirmed with business processes in due course**

2. Project Context

- Name: Business Specifications – KPI / Depot Dashboard Automation
- Purpose: Automate dashboards in use in yards/depots - this is to provide management a view of locomotives standing longer than a selected number of hours.

3. KPI Definition

3.1 Locomotives standing longer than a selected number of hours

- Locomotives that will be acted upon is those that are stationary for more than **a selected number of** hours
- These locomotives can be standing in any location (or can be derailed), i.e. Yards, Exchange Yards, stations, private sidings, workshops, repair depots and holding areas
- This KPI measure the actual number of locomotives standing longer than **a selected number of** hours – Detail is also available.

4. Measure Context

- Feed to / feed from:

  This measurement does not use another measure in its calculation but is used in the calculation of locomotive utilization (wagon model / OEE measures). It is also aggregated on various levels per location.

- This measure is currently only used in Depot Dashboards

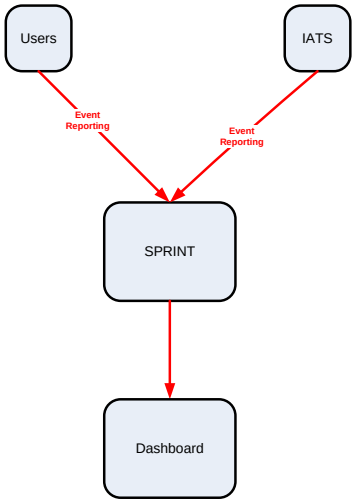
Locomotives standing longer than **the selected number of** hours are currently only available on Real time Monitoring System and IATS graphical viewer.

5. Data Description

- Source systems

  - Capture onto the Sprint and IATS systems

- Data flows model



- Components of the calculation required: N/A

6. Solution Requirements

- Minimum requirements:
  - Dimensions / parameters:
    - Operational structure; starting on location level and aggregated to Yard, Area, Cluster, Region and TFR level
    - Primary requirement is to track locomotives standing longer than **a selected number of** hours.
  - TFR yards, locations should be easily extracted from a location perspective.
  - Reporting periods: Daily,
  - Graphics: Printable bar graphs and tables in PDF-format – rolling 30 days
  - Ability to navigate between levels
  - Linked to other measures in the “Depot Dashboard”

- Additional requirements to optimise this solution:
  - Dimensions / parameters: More detail re. Locations, Areas, Regions, etc.(sortable per criteria).

7. Solution Proposal

- Solution detail:

To obtain the KPIs, a link **“Train and Rolling Stock Performance Indicators”** will be published on the portal. When the user clicks on this link, a list of resources under which the different summarised list of KPI’s resorts, will be displayed. I.e. Trains, Locomotives and Wagons.

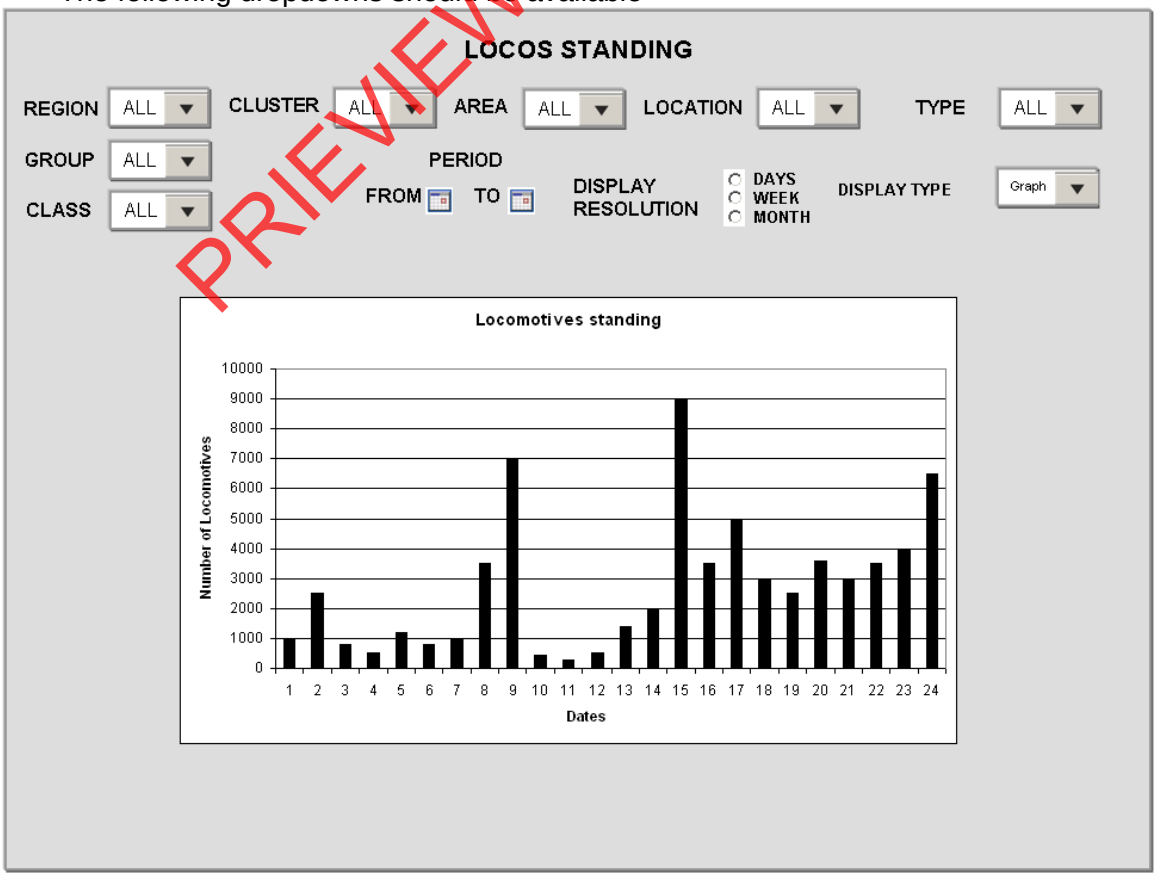
Trains
Locomotives
Wagons

The user would then be able to drill down on each of these summarised list. In this case, they would select **"Locomotives"**

Trains
On Time Arrivals - Minutes late per train
On Time Departures - Minutes late per train
Run more trains - Trains run per day
Run trains with all possible wagons - Wagons per train
Staged loads
Locomotives
Locos standing longer than a selected number of hours
Wagons
Wagons standing longer than a selected number of hours

When the user clicks on a specific KPI, e.g. Locomotives standing longer than **a selected number of** hours, the screen with the selection parameters will be displayed for that KPI **(See diagram below).** The "DISPLAY TYPE" will default to "GRAPH"

The following dropdowns should be available



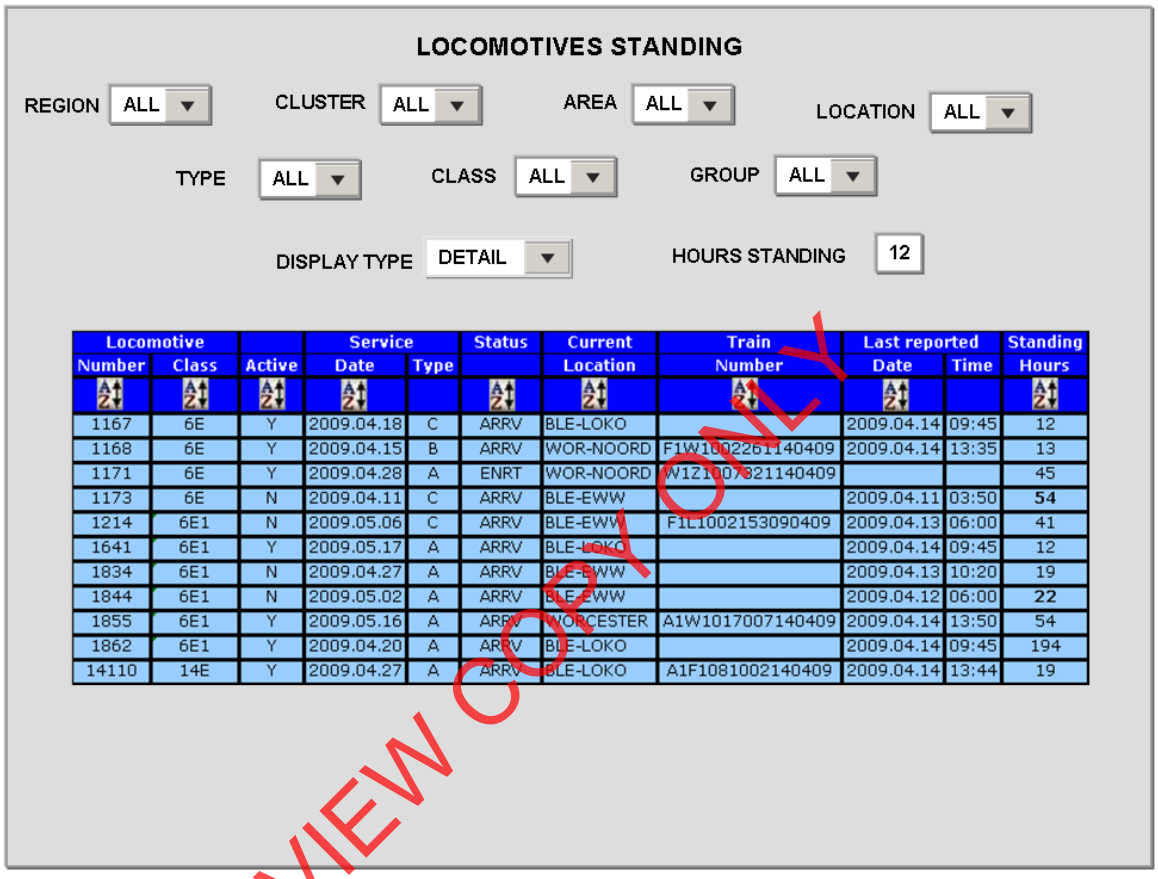
Region:	Drop down with the following: All, Central, Eastern, and Western.
Cluster:	Drop down related to region selected, if no region selected all clusters.
Area:	Drop down related to region selected, if no region selected all areas.
Location:	Drop down related to region and/or area selected as specific yard/depot can be selected.
Type:	Drop down of locomotive types, (E/D/ALL or all). If all is selected all locomotives will be displayed.
Class:	Drop down of locomotive classes per type.
Group:	Drop down of locomotive groups.
Display type:	The output can be either in Graph or Detail format
Period (from/to)	User can select with calendars the From – To dates.
Display resolution	This can be selected to provide information per Day (Max 31), Week (Max 52), Month (Max 24)
Hours:	**This will only be displayed when "DISPLAY TYPE" = "DETAIL".** This is an input field where the user can provide the number of hours that locomotives are standing which need to be monitored. "The hour button is not reflected on the menu list below"

After completing the above screen the execution of the report to generate information will automatically be performed displaying a bar graph according to the information selected. The "DISPLAY TYPE" will default to "GRAPH"

The user can now change the different dropdown to get the desired results in either Graph of Detail view.

If detail is needed, the number of hours that need to be managed must be provided in the "STANDING HOURS" field.

See the detail screen below and the description of every field regarding the detail screen.



LOCOMOTIVES STANDING

REGION ALL | CLUSTER ALL | AREA ALL | LOCATION ALL

TYPE ALL | CLASS ALL | GROUP ALL

DISPLAY TYPE DETAIL | HOURS STANDING 12

Locomotive			Service		Status	Current	Train	Last reported		Standing
Number	Class	Active	Date	Type		Location	Number	Date	Time	Hours
1167	6E	Y	2009.04.18	C	ARRV	BLE-LOKO		2009.04.14	09:45	12
1168	6E	Y	2009.04.15	B	ARRV	WOR-NOORD	F1W1002261140409	2009.04.14	13:35	13
1171	6E	Y	2009.04.28	A	ENRT	WOR-NOORD	W1Z1007321140409			45
1173	6E	N	2009.04.11	C	ARRV	BLE-EWW		2009.04.11	03:50	54
1214	6E1	N	2009.05.06	C	ARRV	BLE-EWW	F1L1002153090409	2009.04.13	06:00	41
1641	6E1	Y	2009.05.17	A	ARRV	BLE-LOKO		2009.04.14	09:45	12
1834	6E1	N	2009.04.27	A	ARRV	BLE-EWW		2009.04.13	10:20	19
1844	6E1	N	2009.05.02	A	ARRV	BLE-EWW		2009.04.12	06:00	22
1855	6E1	Y	2009.05.16	A	ARRV	WORCESTER	A1W1017007140409	2009.04.14	13:50	54
1862	6E1	Y	2009.04.20	A	ARRV	BLE-LOKO		2009.04.14	09:45	194
14110	14E	Y	2009.04.27	A	ARRV	BLE-LOKO	A1F1081002140409	2009.04.14	13:44	19

Column description

- Locomotive number = Locomotive number
- Locomotive class = Locomotive class
- Active = Whether active or not – Y = Yes, N= No.
- Service Date = Service Date
- Service Type = Service Type
- Status = Current status, ARRV – Arrived, ENRT = En-route
- Current Location = Current location
- Train number = Number of movement train
- Last reported Date = Last reporting date
- Last reported Time = Last reporting time
- Standing hours = Number of hours that locomotive is standing

The button provides a sorting option in the column provided.

- Proposed approach (best way to solve current needs/issues)

  - To be decided and finalised

8. Business rules

- **Region**
  - It can only belong to one of the following, Central, Eastern, or Western and must exist in Locnet.
- **Cluster**
  - It can only belong to one region and must exist in MIS.
- **Area**
  - Can only be an area that exists in Locnet.
- **Location**
  - Can only be a location that exist in Locnet and where wagons are delayed.
- Type
  - Can only be E = Electric or D = Diesel
- Class
  - Can only be a valid locomotive class according to the locomotive core data system.
- Group
  - Can only be a valid group as exist in Sprint.
- **Locomotive number**
  - Must exist on the database.
- **Locomotive class**
  - Must be linked to the specific locomotive
- **Active**
  - Must be alpha characters and either “Y” of “N”
- **Service Date**
  - Must be a valid date
- **Service Type**
  - Must be a valid service type and must have the value of A, B or C.
- **Status**
  - Must be a value of 0 or 1 – 0 = Arrived and 1 = En-route.
- **Current Location**
  - Must be a valid location and must exist on LOCNET
- **Train number**
  - Must be a valid train number consisting of 16 digits
- **Last reported Date**
  - Must be a valid date and must be in the past
- **Last reported Time**
  - Must be a valid time and must be in the past
- **Standing hours**
  - Must be grater than the number of hours entered on the input screen.

9. Dataset

```
************************************************************************
* DCLGEN TABLE(RAIL.LOKO_TAB)                                          *
*        LIBRARY(GQTN1.BEDRYF.TKCOPY(LOCOS6B))                         *
*        ACTION(REPLACE)                                               *
*        APOST                                                         *
*        LABEL(YES)                                                    *
* ... IS THE DCLGEN COMMAND THAT MADE THE FOLLOWING STATEMENTS         *
```

```
*****************************************************************
          EXEC SQL DECLARE LOKO_TAB TABLE
          ( LOCOTIPE6B                    CHAR(1) NOT NULL,
            LOCONOMM6B                    CHAR(6) NOT NULL,
            CURARSYS6B                    CHAR(2) NOT NULL,
            CURARTER6B                    CHAR(3) NOT NULL,
            CURARGEB6B                    CHAR(3) NOT NULL,
            CURARSYL6B                    CHAR(6) NOT NULL,
            EIENAARK6B                    CHAR(2) NOT NULL,
            LOCOKLAS6B                    CHAR(6) NOT NULL,
            LOCOTONS6B                    DECIMAL(7, 0) NOT NULL,
            LOCOLNGT6B                    DECIMAL(5, 0) NOT NULL,
            LOCOAXLE6B                    DECIMAL(3, 0) NOT NULL,
            KILNEWTN6B                    DECIMAL(5, 0) NOT NULL,
            TUISDEPT6B                    CHAR(3) NOT NULL,
            TUISDARE6B                    CHAR(14) NOT NULL,
            DIENSDEP6B                    CHAR(3) NOT NULL,
            DIENSARE6B                    CHAR(14) NOT NULL,




            DIENSDAT6B                    DECIMAL(9, 0) NOT NULL,
            REPAIRCD6B                    CHAR(3) NOT NULL,
            VERVRYDT6B                    DECIMAL(9, 0) NOT NULL,
            VERVRYTM6B                    DECIMAL(5, 0) NOT NULL,
            STOPDATM6B                    DECIMAL(9, 0) NOT NULL,
            STOPKODE6B                    CHAR(3) NOT NULL,
            STOPTERM6B                    CHAR(8) NOT NULL,
            RITINSPP6B                    CHAR(3) NOT NULL,
            RITINSPD6B                    DECIMAL(9, 0) NOT NULL,
            MISMOVPL6B                    CHAR(3) NOT NULL,
            MISMOVIN6B                    CHAR(1) NOT NULL,
            MISMOVDT6B                    DECIMAL(9, 0) NOT NULL,
            MISMOVTM6B                    DECIMAL(5, 0) NOT NULL,
            BESKIKBR6B                    CHAR(1) NOT NULL,
            LOCOWORK6B                    CHAR(1) NOT NULL,
            OPMERKNG6B                    CHAR(60) NOT NULL,
            MOVESTAT6B                    CHAR(1) NOT NULL,
            TREINNOM6B                    CHAR(16) NOT NULL,
            LOCOSTAT6B                    CHAR(2) NOT NULL,
            TIMENORM6B                    DECIMAL(3, 0) NOT NULL,
            VERTSTAT6B                    CHAR(2) NOT NULL,
            VRBESKIK6B                    CHAR(1) NOT NULL,
            LOCOSVAN6B                    CHAR(3) NOT NULL,
            VANSTASP6B                    CHAR(20) NOT NULL,
            AREAVANK6B                    CHAR(14) NOT NULL,
            VERTRKDT6B                    DECIMAL(9, 0) NOT NULL,
            VERTRKTD6B                    DECIMAL(5, 0) NOT NULL,
            VTRANIDC6B                    CHAR(4) NOT NULL,
            VTERMADD6B                    CHAR(8) NOT NULL,
            VSIGNONS6B                    CHAR(10) NOT NULL,
            VTRANDAT6B                    DECIMAL(9, 0) NOT NULL,
            VTRANTIM6B                    DECIMAL(5, 0) NOT NULL,
            AANSTATS6B                    CHAR(2) NOT NULL,
            AANBESKT6B                    CHAR(1) NOT NULL,
            STASIENA6B                    CHAR(3) NOT NULL,
            STANASPE6B                    CHAR(20) NOT NULL,
            AREANAKD6B                    CHAR(14) NOT NULL,
            ARENASYS6B                    CHAR(2) NOT NULL,
            ARENATER6B                    CHAR(3) NOT NULL,
            ARENAGEB6B                    CHAR(3) NOT NULL,
            ARENASYL6B                    CHAR(6) NOT NULL,
            ARIVALDT6B                    DECIMAL(9, 0) NOT NULL,
            ARIVALTM6B                    DECIMAL(5, 0) NOT NULL,
            ATRANIDC6B                    CHAR(4) NOT NULL,
            ATERMADD6B                    CHAR(8) NOT NULL,
            ASIGNONS6B                    CHAR(10) NOT NULL,
            ATRANDAT6B                    DECIMAL(9, 0) NOT NULL,
```

```
             ATRANTIM6B
DECIMAL(5, 0) NOT NULL,
             BLOKSPEL6B
CHAR(20) NOT NULL,
             BLOKAREA6B
CHAR(14) NOT NULL,
             BLOKYARD6B                      CHAR(3) NOT NULL,
             BLOKDATE6B                      DECIMAL(9, 0) NOT NULL,
             BLOKTIME6B                      DECIMAL(5, 0) NOT NULL,
             BLOKTRAN6B                      CHAR(4) NOT NULL,
             BLOKADDR6B                      CHAR(8) NOT NULL,
             BLOKSIGN6B                      CHAR(10) NOT NULL,
             BLOKTDAT6B                      DECIMAL(9, 0) NOT NULL,
             BLOKTTYD6B                      DECIMAL(5, 0) NOT NULL,
             DIENSTIP6B                      CHAR(1) NOT NULL,
             ONDERVDL6B                      CHAR(2) NOT NULL,
             ONTREKDT6B                      DECIMAL(9,0) NOT NULL,
             ONTREKTM6B                      DECIMAL(5,0) NOT NULL,
             VERHUURN6B                      CHAR(30) NOT NULL,
             HUURVNDT6B                      DECIMAL(9,0) NOT NULL,
             HUURTODT6B                      DECIMAL(9,0) NOT NULL,
             ASSETCDE6B                      CHAR(07)     NOT NULL,
             SRVSTDTE6B                      DECIMAL(9,0) NOT NULL,
             SRVSTTIM6B                      DECIMAL(5,0) NOT NULL,
             SRVENDTE6B                      DECIMAL(9,0) NOT NULL,
             SRVENTIM6B                      DECIMAL(5,0) NOT NULL
           ) END-EXEC.
      ******************************************************************
      * COBOL DECLARATION FOR TABLE RAIL.LOKO_TAB                      *
      ******************************************************************
       01  DCLLOKO-TAB.
           10 LOCOTIPE6B           PIC X(1).
      **** E=ELEKTRIES D=DIESEL S=STOOM F=FOREIGN
      ******************************************************************
           10 LOCONOMM6B           PIC X(6).
      **** LOCO NOMMER
      ******************************************************************
           10 CURARSYS6B           PIC X(2).
      **** AFDELING WAAR LOKO NOU IS
      ******************************************************************
           10 CURARTER6B           PIC X(3).
      **** TERREIN WAAR LOKO NOU IS
      ******************************************************************
           10 CURARGEB6B           PIC X(3).
      **** GEBIED WAAR LOKO NOU IS
      ******************************************************************
           10 CURARSYL6B           PIC X(6).
      **** SYLYN WAAR LOKO NOU IS
      ******************************************************************
           10 EIENAARK6B           PIC X(2).
      **** EIENAAR KODE
      ******************************************************************
           10 LOCOKLAS6B           PIC X(6).
      **** LOCO KLAS
      ******************************************************************
           10 LOCOTONS6B           PIC S9999999V USAGE COMP-3.
      **** MASSA VAN LOKO
      ******************************************************************
           10 LOCOLNGT6B           PIC S99999V USAGE COMP-3.
      **** LENGTE VAN LOKO
      ******************************************************************
           10 LOCOAXLE6B           PIC S999V USAGE COMP-3.
      **** ASSE
      ******************************************************************
           10 KILNEWTN6B           PIC S99999V USAGE COMP-3.
      **** LOKO SE TREKKRAG
      ******************************************************************
           10 TUISDEPT6B           PIC X(3).
      **** TUISDEPOT
      ******************************************************************
           10 TUISDARE6B           PIC X(14).
      **** TUISDEPOT SE AREAKODE
      ******************************************************************
           10 DIENSDEP6B           PIC X(3).
      **** DIENSDEPOT
      ******************************************************************
           10 DIENSARE6B           PIC X(14).
```

```
      **** DIENSDEPOT SE AREAKODE

*****************************************************************
           10 DIENSDAT6B           PIC S999999999V USAGE COMP-3.
      **** VOLGENDE DIENSDATUM
      *****************************************************************
           10 REPAIRCD6B           PIC X(3).
      **** HERSTEL/DIENSKODE
      **** 001 = OUTOMATIES GESTOP
      *****************************************************************
           10 VERVRYDT6B           PIC S999999999V USAGE COMP-3.
      **** VERWAGTE VRYSTELLINGS DATUM UIT WERKSWINKEL
      *****************************************************************
           10 VERVRYTM6B           PIC S99999V USAGE COMP-3.
      **** VERWAGTE VRYSTELLINGS TYD UIT WERKSWINKEL
      *****************************************************************
           10 STOPDATM6B           PIC S999999999V USAGE COMP-3.
      **** STOPDATUM
      *****************************************************************
           10 STOPKODE6B           PIC X(3).
      **** BESKRYWING
      **** 077 = RANGEERDIENS BEGIN
      **** 078 = RANGEERDIENS EINDIG
      **** 079 = HERSTEL BEGIN
      **** 080 = HERSTEL EINDIG
      **** 081 = RITINSPEKSIE BEGIN
      **** 082 = RITINSPEKSIE EINDIG
      **** 086 = HERSTEL EINDIG NOG STEDDS ONKLAAR
      *****************************************************************
           10 STOPTERM6B           PIC X(8).
      **** TERMINAAL WAT LOKO OP STOP GEPLAAS HET
      *****************************************************************
           10 RITINSPP6B           PIC X(3).
      **** VOLGENDE RITINSPEKSIE DEPOT
      *****************************************************************
           10 RITINSPD6B           PIC S999999999V USAGE COMP-3.
      **** VOLGENDE RITINSPEKSIE DATUM
      *****************************************************************
           10 MISMOVPL6B           PIC X(3).
      **** PLEK WAAR N VERMISTE RAPPORTERING NOG UITSTAANDE IS
      *****************************************************************
           10 MISMOVIN6B           PIC X(1).
      **** TIPE VERMISTE BEWEGING
      ****   0 = VERTREK
      ****   1 = AANKOMS
      *****************************************************************
           10 MISMOVDT6B           PIC S999999999V USAGE COMP-3.
      **** DATUM VAN VERMISTE BEWEGING
      *****************************************************************
           10 MISMOVTM6B           PIC S99999V USAGE COMP-3.
      **** TYD VAN VERMISTE BEWEGING
      *****************************************************************
           10 BESKIKBR6B           PIC X(1).
      **** BESKIKBAARHEIDSAANWYSER
      **** 0 = AVAILABLE (YES)
      **** 1 = AVAILABLE FOR RESTRICTED USE
      **** 2 = NOT AVAILABLE (NO)
      *****************************************************************
           10 LOCOWORK6B           PIC X(1).
      **** 0 = GEWOON 1 = SHUNT 2 = HAULER 3 = TRAIN
      *****************************************************************
           10 OPMERKNG6B           PIC X(60).
      **** OPMERKING
      *****************************************************************
           10 MOVESTAT6B           PIC X(1).
      **** BEWEGINGS STATUS VAN LOKO
      **** 0 = VERTREK
      **** 1 = AANGEKOM
      *****************************************************************
           10 TREINNOM6B           PIC X(16).
      **** TREIN NOMMER
      *****************************************************************
           10 LOCOSTAT6B           PIC X(2).
```

```
      **** LOKOMOTIEF STATUS AAN TREIN
      **** A = ACTIVE
      **** D = DEAD(FAILED OR STOPPED FOR
FURTHER USE)
      **** S = SPARE(AVAILABLE LOCOMOTIVES
TRAVELLING WITHOUT POWER)
      **** L = LIGHT
      ******************************************************************
           10 TIMENORM6B           PIC S999V USAGE COMP-3.
      **** TYDNORM TUSSEN TERREINE(URE)
      ******************************************************************
           10 VERTSTAT6B           PIC X(2).
      **** STATUS VAN LOKO BY VERTREK
      **** 00 = GEEN VERTREK NIE
      **** 03 = VERTREK ANN TREIN
      **** 04 = VERTREK AAN ROTBLOK TREIN
      **** 05 = HERREEL VAN LOKO
      **** 06 = RUIM.NA DOOD OF AFGEHAAKTE TREIN
      **** 07 = VERTREK VAN TERREIN NA LOODS
      **** 08 = VERTREK VAN LOODS NA TERREIN
      **** 09 = VERTREK VAN LOODS NA LOODS
      **** 10 = VERTREK VAN LOODS NA WERKSWINKEL
      **** 11 = VERTREK VAN WERKSWINKEL NA LOODS
      **** 12 = AANHAK VAN LOKO
      **** 13 = VERTREK OORPLAAS VAN LOKOMOTIEF
      **** 14 = NUWE LOKO IN DIENS GEPLAAS
      **** 15 = VERTREK OORPLAAS VAN LOKOMOTIEF
      ******************************************************************
           10 VRBESKIK6B           PIC X(1).
      **** BESKIKBAARHEIDSINDIKATOR BY VERTREK
      **** 0 = AVAILABLE (YES)
      **** 1 = AVAILABLE FOR RESTRICTED USE
      **** 2 = NOT AVAILABLE (NO)
      ******************************************************************
           10 LOCOSVAN6B           PIC X(3).
      **** LOCO STASIE VAN/WAAR
      ******************************************************************
           10 VANSTASP6B           PIC X(20).
      **** VAN/WAAR KORREKTE SPELLING
      ******************************************************************
           10 AREAVANK6B           PIC X(14).
      **** VAN/WAAR STASIE SE AREAKODE
      ******************************************************************
           10 VERTRKDT6B           PIC S999999999V USAGE COMP-3.
      **** VERTREK DATUM
      ******************************************************************
           10 VERTRKTD6B           PIC S99999V USAGE COMP-3.
      **** VERTREK TYD
      ******************************************************************
           10 VTRANIDC6B           PIC X(4).
      **** VERTREK TRANSAKSIE KODE
      ******************************************************************
           10 VTERMADD6B           PIC X(8).
      **** VERTREK TERMINAAL ADRES
      ******************************************************************
           10 VSIGNONS6B           PIC X(10).
      **** VERTREK AANTEKENINGS KODE
      ******************************************************************
           10 VTRANDAT6B           PIC S999999999V USAGE COMP-3.
      **** VERTREK DATUM BYWERKING GEDOEN IS
      ******************************************************************
           10 VTRANTIM6B           PIC S99999V USAGE COMP-3.
      **** VERTREK TYD BYWERKING GEDOEN IS
      ******************************************************************
           10 AANSTATS6B           PIC X(2).
      **** STATUS VAN LOKO BY AANKOMS
      **** 00 = NOG NIE AANGEKOM NIE
      **** 05 = HERREEL AANKOMS
      **** 51 = AANKOMS ROT TREIN
      **** 52 = AANKOMS ROTBLOC TREIN
      **** 53 = DOOD/AFHAAK VAN TREIN
      **** 54 = AANKOMS LOKOLOODS VANAF TERREIN
      **** 55 = AANKOMS LOKOLOODS VANAF LOKOLOODS
      **** 56 = AANKOMS BY TERREIN VANAF LOODS
      **** 57 = AANKOMS BY WERKSWINKEL VANAF LOODS
      **** 58 = AANKOMS BY LOODS VANAF WERKSWINKEL
      **** 59 = AFHAK VAN LOKOMOTIEF
```

```
      **** 60 = AFHAK VAN LOKOMOTIEF A.G.V
ONKLAAR RAKING
      **** 61 = AANKOMS VAN OORPLAAS
LOKOMOTIEF
      **** 62 = AANKOMS VAN LOKOS BY 'NA'
      **** 63 = NUWE LOKO IN DIENS GEPLAAS
      **** 64 = AANKOMS VAN OORPLAAS LOKOMOTIEF
      ******************************************************************
           10 AANBESKT6B           PIC X(1).
      **** BESKIKBAARHEIDSINDIKATOR BY AANKOMS/AKSIE
      **** 0 = AVAILABLE (YES)
      **** 1 = AVAILABLE FOR RESTRICTED USE
      **** 2 = NOT AVAILABLE (NO)
      ******************************************************************
           10 STASIENA6B           PIC X(3).
      **** LOKO STASIE NA
      ******************************************************************
           10 STANASPE6B           PIC X(20).
      **** KORREKTE SPELLING VAN LOKO STASIE NA
      ******************************************************************
           10 AREANAKD6B           PIC X(14).
      **** TERREIN/STASIE WAARHEEN LOKO OP PAD IS SE A/KODE
      ******************************************************************
           10 ARENASYS6B           PIC X(2).
      **** AFDELING
      ******************************************************************
           10 ARENATER6B           PIC X(3).
      **** TERREIN
      ******************************************************************
           10 ARENAGEB6B           PIC X(3).
      **** GEBIED
      ******************************************************************
           10 ARENASYL6B           PIC X(6).
      **** SYLYN
      ******************************************************************
           10 ARIVALDT6B           PIC S999999999V USAGE COMP-3.
      **** AANKOMS DATUM
      ******************************************************************
           10 ARIVALTM6B           PIC S99999V USAGE COMP-3.
      **** AANKOMS TYD
      ******************************************************************
           10 ATRANIDC6B           PIC X(4).
      **** AANKOMS TRANSAKSIE KODE
      ******************************************************************
           10 ATERMADD6B           PIC X(8).
      **** AANKOMS TERMINAAL ADRES
      ******************************************************************
           10 ASIGNONS6B           PIC X(10).
      **** AANKOMS ANNTEKENINGS KODE
      ******************************************************************
           10 ATRANDAT6B           PIC S999999999V USAGE COMP-3.
      **** AANKOMS DATUM BYWERKING GEDOEN
      ******************************************************************
           10 ATRANTIM6B           PIC S99999V USAGE COMP-3.
      **** AANKOMS TYD BYWERKING GEDOEN
      ******************************************************************
           10 BLOKSPEL6B           PIC X(20).
      **** BLOK BERIG - AANKOMS PLEK
      ******************************************************************
           10 BLOKAREA6B           PIC X(14).
      **** BLOK BERIG - AREAKODE
      ******************************************************************
           10 BLOKYARD6B           PIC X(3).
      **** BLOK BERIG - STDCODE
      ******************************************************************
           10 BLOKDATE6B           PIC S999999999V USAGE COMP-3.
      **** BLOK BERIG - AANKOMS DATUM
      ******************************************************************
           10 BLOKTIME6B           PIC S99999V USAGE COMP-3.
      **** BLOK BERIG - AANKOMS TYDK
      ******************************************************************
           10 BLOKTRAN6B           PIC X(4).
      **** BLOK BERIG - TRANSAKSIE BYWERKING GEDOEN
      ******************************************************************
           10 BLOKADDR6B           PIC X(8).
      **** BLOK BERIG - TERMINAAL BYWERKING GEDOEN
      ******************************************************************
```

```
           10 BLOKSIGN6B            PIC X(10).
      **** BLOK BERIG - AANTEKENKODE
BYWERKING GEDOEN

*****************************************************************
           10 BLOKTDAT6B            PIC S999999999V USAGE COMP-3.
      **** BLOK BERIG - TRANSAKSIE DATUM
      *****************************************************************
           10 BLOKTTYD6B            PIC S99999V USAGE COMP-3.
      **** BLOK BERIG - TRANSAKSIE TYD
      *****************************************************************
           10 DIENSTIP6B            PIC X(1).
      **** A TIPE DIENS OF B TIPE DIENS
      *****************************************************************
           10 ONDERVDL6B            PIC X(2).
      **** ONDERVERDEEL VELD
      *****************************************************************
           10 ONTREKDT6B            PIC S9(09) COMP-3.
      **** ONTREK DATUM
      *****************************************************************
           10 ONTREKTM6B            PIC S9(05) COMP-3.
      **** ONTREK TYD
      *****************************************************************
           10 VERHUURN6B            PIC X(30).
      **** VERHUUR AAN
      *****************************************************************
           10 HUURVNDT6B            PIC S9(09) COMP-3.
      **** OP HUUR VAN DATUM
      *****************************************************************
           10 HUURTODT6B            PIC S9(09) COMP-3.
      **** OP HUUR TOT DATUM
      *****************************************************************
           10 ASSETCDE6B            PIC X(07).
      *****************************************************************
           10 SRVSTDTE6B            PIC S9(09) COMP-3.
      **** SERVICE STARTING DATE (AI)
      *****************************************************************
           10 SRVSTTIM6B            PIC S9(05) COMP-3.
      **** SERVICE STARTING TIME (AI)
      *****************************************************************
           10 SRVENDTE6B            PIC S9(09) COMP-3.
      **** SERVICE END DATE (AI)
      *****************************************************************
           10 SRVENTIM6B            PIC S9(05) COMP-3.
      **** SERVICE END TIME (AI)
      *****************************************************************
      *****************************************************************
      * THE NUMBER OF COLUMNS DESCRIBED BY THIS DECLARATION IS 77      *
      *            INDEXS - DGQTX6BA - LOCOTIPE6B                      *
      *                               LOCONOMM6B                       *
      *                     DGQTX6BB - LOCOKLAS6B                      *
      *                     DGQTX6BC - CURARSYS6B                      *
      *                               CURARTER6B                       *
      *                               CURARGEB6B                       *
      *                               CURARSYL6B                       *
      *                     DGQTX6BD - ARENASYS6B                      *
      *                               ARENATER6B                       *
      *                               ARENAGEB6B                       *
      *                               ARENASYL6B                       *
      *                     DGQTX6BE - TUISDEPT6B                      *
      *                     DGQTX6BF - DIENSDAT6B                      *
      *                     DGQTX6BF - STOPDATM6B                      *
      *                     DGQTX6BH - ONDERVDL6B                      *
      *****************************************************************
```


10. Technical SQL

Utilise all available locos - Locos standing longer than X hours

Locomotive utilisation information can be extracted from the DB2 tables as a snapshot using the following SQL:-

```
SELECT
DISTINCT
LOCONOMM6B||LOCOTIPE6B||LOCOKLAS6B AS
LOCODET,TUISDEPT6B||DIENS
DEP6B AS
HOMSERV,DIENSDAT6B,REPAIRCD6B AS REPCD,STANASPE6B AS WHERE,
SUBSTR(GROUPNME99,1,8) AS AREAOFFC,ZONEDESC99 AS REGION,SUBSTR(DIGITS(AR
IVALDT6B),2,8)||' '||SUBSTR(DIGITS(ARIVALTM6B),2,4) AS ARRDTTM,
CASE WHEN STOPKODE6B = '077' THEN 'SHNT   ' WHEN STOPKODE6B = '078' THEN
 'IDLE   ' WHEN STOPKODE6B = '079' THEN 'REPAIRS' WHEN STOPKODE6B = '080
' THEN 'IDLE   ' WHEN STOPKODE6B = '081' THEN 'TRIPINS' WHEN STOPKODE6B
 = '082' THEN 'IDLE   ' ELSE 'IDLE ' END AS STATE
FROM RAIL.LOKO_TAB,RAIL.AREAGROUP_TAB
WHERE AANSTATS6B ¬= '00'
  AND CURARSYS6B||CURARTER6B||CURARGEB6B||CURARSYL6B = AREACODE99
  AND LOCOTIPE6B IN ('E','D') AND TUISDEPT6B ¬= 'BEZ'
ORDER BY STANASPE6B
WITH UR
```

Ideal Sequence?	Role	Accountability (I hereby declare that I have reviewed this document and it …)
1	ICTM – Programme Management	… is within the scope of the project / programme as defined
2	Process Owner	… correctly defines the business context and measure … references the correct business processes … correctly describes related available data and source systems … identified the current utilisation of the measure
3	Functional MIS representative (where available)	co-sign with process owner and … designed the display such that it will fit with other dashboards
4	Performance Enablement	… the KPI definition is correct / have been added to the list of definitions … designed the display such that it will fit with other dashboards
5	ICTM – Portfolio Management	… complies with the standard and contains all the required and relevant content
6	ICTM – Technical / Information Architecture	… provides sufficient information to develop the technical specifications from
7	Sponsor	… addresses the business need as defined

5. Sign

Project name	TBI Stream C		
Signatories		**Signature**	**Date**
Dirk Nieuwoudt	Project sponsor		18/06/09
NGABI MAREKO	Process Owner		18/06/09
Mark Snyders	Portfolio Management		
	Programme Management		
Kesegan Nair	ICTM – Technical / Information Architecture		

TRANSNET

delivering on our commitment to you freight rail

Transnet Freight Rail Dashboard Functional Specification

KPA Name(s)	Risk, Safety and Compliance
Project Name	KPI / Depot Dashboard Automation
Project Sponsor:	Dirk Nieuwoudt
Version:	3.1
Document Title:	Safety Incidents Dashboard Specification_v3.1
Creation Date:	13 February 2009
Revision Date:	03 June 2009
Document Reference:	
Primary Author(s):	Paballo Lecheko & Matodzi Mutavhatsindi
Co-Author(s):	KPI / Depot Dashboard Automation Team

APPROVED: 20/07/09 FS. DU PREEZ

APPROVED: R MAHLAYE 22/07/2009

1. INTRODUCTION

1.1. Overview

- The purpose of dashboard reports is to allow managers to step back from the details and compare / see the key trends and relationships that drive the performance of the organisation.

- The automated dashboards will provide an electronic and summarised view of pre-determined safety incidents indicators which will enable management, to measure the performance in terms of safety.

- The safety indicators information will be displayed per region, per area, per depot/yard and from a yard/deport viewpoint including train crew, train control, infrastructure, Transnet Rail Engineering, customer care and area manager.

1.1. Risks

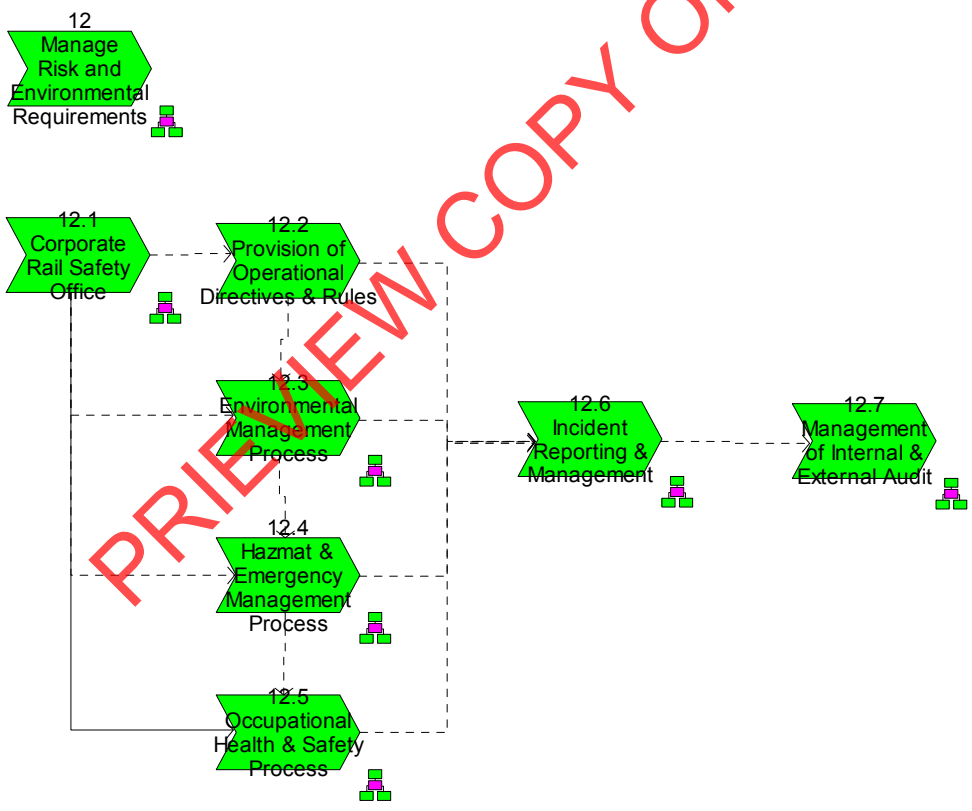
- Some of the current source information sets are manually processed and stored on stand alone applications and hardware
- Although SAP TOMS has been identified as the primary source for the reports, the integrity of the data is questionable. The fact that SAP TOMS is not utilised to it's full capacity by its users, could also be problematic.

BUSINESS SPECIFICATIONS FOR SAFETY INCIDENTS – KPI / DEPOT DASHBOARD AUTOMATION

2. Business Context

- Measurement of safety incidents
- Linked to the operational safety processes (from value chain and L1 level)

Value-added chain diagram



3. Project Context

- Name: Business Specifications – KPI / Depot Dashboard Automation
- Purpose: Automate dashboards in use in yards/depots - this is to provide management a view of safety incidents

4. KPI Definitions

4.1 Derailments *(yard/depot, train crew, train control, infrastructure, TRE, customer care & area manager view)*

- A derailment is whenever the wheel tyre of a rail vehicle leave the railway line and also when the wheel flange ends upon the line (during shunting/train

  movement and off loading or loading processes) – either of these conditions to be regarded as a derailment
- Derailments can take place on the running line, in yards, in customer sidings, TRE depots & in the ports.

4.2 Collisions *(yard/depot, train control, TRE & area manager view)*

- A collision occurs when two opposing trains come in contact with each on a running line during a train movement, a shunting movement comes into contact with a train on the running line or vehicles left behind in the section as result of a train parting load accidentally or purposely for operational reasons. *Collisions can happen in three different ways as highlighted and explained below:*
- *Head-on collision*: a head-on collision is when - the locomotive or leading vehicle of two opposing trains comes in contact with each other, during a train movement on a running line. Should the locomotive, or the locomotive and part of the load of a train, returning for the rear portion of its load, which has been divided or accidentally become divided in section, collides with the leading vehicle of the stationary portion, the occurrence must be classified as a head-on collision.

- *rear-end collision*: a rear-end collision is when - the locomotive or leading vehicle of one train comes into contact with the trailing vehicle or locomotive of another train in the same direction of travel, during a train movement on a running line or the locomotive or leading vehicle of a train during a train movement on running line comes into contact with vehicles or locomotives, other than trains occupying the line onto which the train is being admitted in a station, interloop or interceding.

- *side-on collision*: a side-on collision is when - during a train movement on a running line a train comes into contact with the side of another train or vehicles/locomotives standing foul, or when a shunting movement comes into contact with the side of a train, during a train movement on a running line and vice versa. Side-on collisions occur at a point where two lines converge

4.3 **Staff Injuries** *(yard/depot, train crew, train control, infrastructure, TRE & area manager view)*

- Number of disabling injuries and deaths recorded for each structure in operation e.g. yards, crew, infra, etc.
- Disabling Injuries include e.g. injuries where one or more shifts were lost, loss of limb, concussion, etc
- These injuries are divided into two categories and captured into TOMS according to the categories they are classified under. Employee struck by train or Employee struck during shunting.

4.4 Signals Passed at "Danger" *(Train crew, Infrastructure & area manager view)*

- Absolute stop and stop signals passed at "danger" without authorisation
- SPAD = exceeding train movement authority

4.5 Loco/wagon incidents *(TRE)*

- Loco incident = collision, derailment, hook-ups, etc Wagon Incident = Hot box, Warm wheels, Faulty Vacuum Cylinders, Faulty Slack Adjusters, etc.

4.6 Cable theft incidents (infrastructure & customer care)

- Number of cable thefts measured in Spans

4.7 OHTE incidents *(infrastructure)*

- OHTE incident = hook-ups

4.8 Perway incidents *(infrastructure)*

- Perway: rail network
- Incident: rail brakes, kick outs, damage to sleepers post derailments, level crossing deviations

4.9 Signal incidents *(infrastructure)*

- Signal incident refers to the non - availability of hotbox detectors and Central Traffic Control.

4.10 Level crossing accidents *(area manager view)*

- Collisions between train or shunting movements with road vehicles on a legal level crossing irrespective if the vehicle is motor-powered, a bicycle or animal drawn vehicle

- These safety KPIs measure the actual number of incidents occurring.

5. Measure Context

- Feed to / feed from:

  This measurement stands on its own i.e. it does not use another measure in its calculation nor is it used to calculate a higher level measure. Is however aggregated on various levels per type.

- Safety incidents are currently reported in the following dashboards:

  - Transnet Exco (TFR input into the Transnet workbook)
  - Transnet Executive Dashboard
  - Transnet RiskCo
  - Transnet Freight Rail Exco
  - Transnet Freight Rail Risco
  - Transnet Freight Rail Opco
  - ROE Monthly Safety Meetings

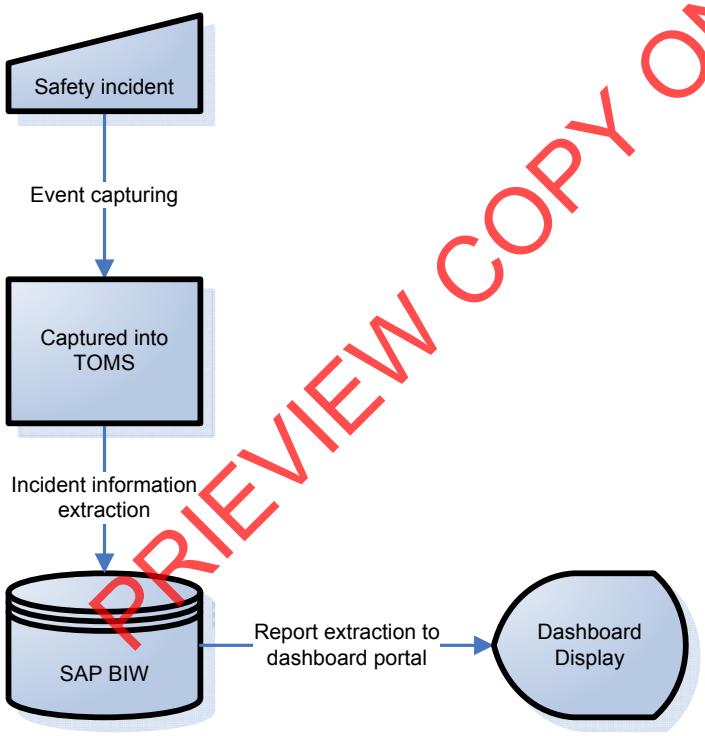
- APM Monthly Safety Meetings
- Area Monthly Safety Meetings
- Quarterly SMS reviews
- Rail Safety Regulator reports

6. Data Description

- Source systems

  The incidents are captured into TOMS where they are extracted and stored on SAP B.I.W for reporting purposes

- Data flow model:



- Components of the calculation required: N/A

7.1 TOMS Business Rules

7.1.1 TOMS – Capture Occurrence

All occurrences will be captured in TOMS to enable the responsible people involved to take action, monitor and follow-up progress of each activity until final close-out. In this process, immediate action and call-outs will be carried out as per company's procedure before entering the occurrence on TOMS. The Occurrence Capturer will enter the information through an interface (Web or SAP Portal) and the Administrative Occurrence Manager will add additional

information to the occurrence, such as the responsible person/s and responsible department/s before accepting the occurrence. It also enables the Administrative Occurrence Manager to check for duplications in the system.

7.1.2 TOMS – Investigate Occurrence

All occurrences must be investigated as per the classification levels. Investigation Team Members must be assigned to the occurrence as per the Business Unit Guidelines. All evidence that forms part of the investigation process can be attached via the Document Management System for future SHEQ Audits and also for history purposes. In this process, it is also determine if insurance and/or a claim or potential claim is involved. The Occurrence Investigator can review historic incident/occurrence trends to decide which action should be taken. The Occurrence Risk Manager will report on outstanding tasks and establish if the risk control measures have been implemented successfully.

7.1.3 TOMS – Manage Injury Occurrences

This process kicks off when an injury has occurred. It must be determined, if medical treatment is required for the injured person, so that the necessary forms be completed.

The injured person's details, the witnesses and their statements and the occurrence details must be completed before accepting the injury. The Risk Support Manager determines if it is necessary to notify authority and if not, is it necessary to investigate further. The IOD Administrator is responsible for updating the person's absence data, update information, link documents and generate WCL forms.

7.1.4 TOMS – Manage Corrective/Preventive Actions

In this process, a task/s is allocated to a responsible person/s to carry out the task/s by a certain start and end date. All tasks must be checked by another person to verify the effectiveness of the task/s. A plant maintenance notification can be created from this process for any maintenance activities that need to be carried out. If tasks are not carried out on time, the task will be escalated to the Risk Controller who decides if the task must be escalated to the person's superior to decide if the date must be extended or assign the task to another person. The procurement process can initiate from this process, if there is service and/or maintenance required from an external supplier or contractor.

7.1.5 TOMS – Manage Information

If a new report is requested from a user, the super user determines if the report currently exists. If the report exists, then the super user checks if the report matches the requirements of the existing report. An existing report can be amended to include the characteristics and key figures necessary to display the required fields as requested.

If the report does not exist, then the super user must inform the BW Administrator to create the relevant objects to develop the report. The BW

Administrator will monitor the data on a monthly basis. The master and transactional data from TOMS are displayed in Business Warehouse as characteristic and key figures. The Queries/reports developed in Business Explorer form part of the characteristics and key figures predetermined by the champions/super users.

7.1.6 TOMS 06 – Manage Documents

Documents are attached via Document Information Records (DIR). Documents that are occurrence related, is created from within the TOMS interface and the other documents such as policies and procedures via the standard document management system transactions. A Document Information Record is populated with the same number as the occurrence and more than one Document Information Record can be attached to an occurrence. The following documents can be attached: - Word, Excel, Power point, PDF, JPEG, Scan documents and additional document types as required.

8. Solution Requirements

- Minimum requirements:

  - Dimensions / parameters: **1.** Operational structure; starting on location level and aggregated to area, cluster, regional and TFR level; **2**. Types of incidents: yards, customer sidings and running line
  - TFR yards, customer sidings and running line derailments should be easily extracted from a location and derailment type perspective
  - Reporting periods: Daily, based on incidents for 24 hour period ending at 24h00.
  - Graphics: Printable bar graphs – rolling 30 days
  - Ability to navigate between levels i.e yard/depot, customer sidings, etc
  - Linked to other measures in the “Depot Dashboard”

- Additional requirements to optimise this solution:

  - Dimensions / parameters: More detail re. locations and additional incidents types
  - Reporting periods: Aggregated to weekly (up to Sunday night 24h00) and monthly (one calendar month)
  - Graphics: Bar graphs – rolling 30 days or a month – show relationship between bar graphs i.e leading and lacking indicators
  - Ability to navigate per time periods
  - Ability to measure the root causes or incidents reasons – by major cause

- Requirements to enable utilisation in the other dashboards that contains the measure / related measures:

  - Addition of targets – year to date (to be explored) i.e 7, 10, 15…
  - Link to cost component – available from TOMS at a yard level
  - Different monthly reporting periods (calendar month required by RSR)

- Expression as a ratio with workload taken into account (currently per million train km etc)
- Accumulative graphs for projection of future months – for financial year basis
- Linkage between incidents and BOI status, status of BOI recommendations and basic / root causes

9. Solution Proposal

- Solution detail:

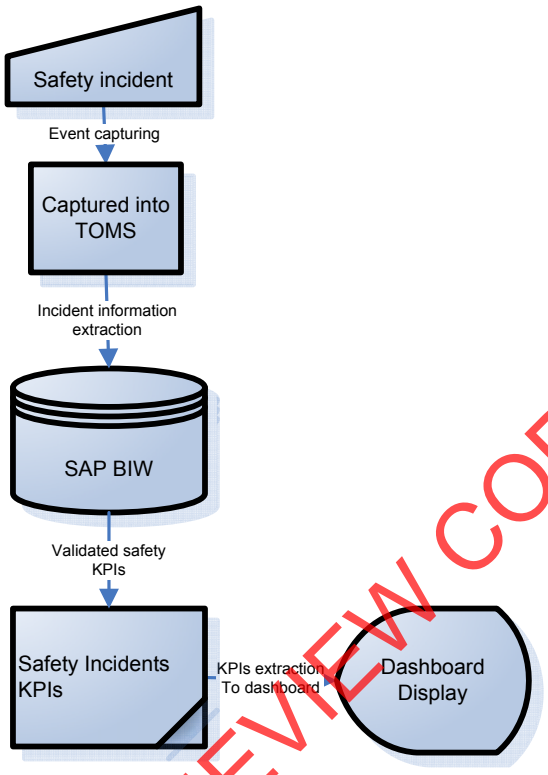
  On the dashboard a link will be published "Safety Incidents KPI". In order to access the KPI dashboard the users will have to log on to the TFR portal by providing a valid username and password then the link to the dashboard will appear. After logging on successfully the main menu will be displayed then the user will select applicable KPI with the required parameters to be completed.

9.1 Dashboard Data Presentation:

- This will display various bar graphs of incident types that have occurred and impacts operational performance within the following operational sectors listed below: Each category will have information on the safety performance indicator with a drill down functionality to location level

  - Yard/Depot view
  - Train Crew
  - Train Control
  - Infrastructure
  - Transnet Rail Engineering
  - Customer care
  - Area Manager view

9.2 KPI / Depot Dashboard Automation will display as follow:



Parameters screen fields explained:

****Region** (on this parameter a drop down list of: All (Cost Centre Group: G012428); Western (Cost Centre Group: G014527); Eastern (Cost Centre Group: G014528); Central (Cost Centre Group: G014526) and Containers – This selection defaults to "ALL" however the user has the option to select from the drop down list the required region's safety KPIs to view. If all is selected then all incidents for Transnet Freight rail will be displayed.

****Cluster** (on this parameter a drop down list of clusters will be available for selection) the user has the option to select from the drop down list of the required cluster structure (Area Production Manager Cost Centre Structure).

****Area** (on this parameter a drop down list based on the region selected by the user, if all or blank then all areas must be displayed, if western region is selected then all areas under western region etc will be displayed for selection) – when this parameter is completed then the total number of derailment/collisions/safety incidents that took place in that specific area (as per selected by the user) will be displayed e.g. Natalspruit = 3 and a bar graph displaying the 30 days rolling view.

Yard (Location) - (on this parameter a drop down list of yards based on the region or area selected). If the user selects a yard then the sum of all i.e. derailment/collisions/safety incidents that took place in that yard based on the user selection for the specified period will be displayed e.g Natalspruit = 2 and a corresponding bar graph with the 30 days rolling view displayed.

Incident classification (there is a drop down list but the default is based on the KPI selected) the user has the opportunity to select the incident class/ type to be displayed. The following incident classifications will be included for selection on the drop down list: Injuries to staff, Yard Derailments, Collisions, Yard & Running line Derailments, SPADS, Perway incidents, OHTE incidents, Signal incidents, Cable Theft incidents, Loco/Wagon incidents, Yard siding derailments, Yard siding collisions and Level crossing incidents. Incident classification will be structured as per the *Value Hierarchy for Character in TOMS* **(see annexure A of value hierarchy)**

Period "Date From (defaults to today's date**)" and "Date To"** – on this parameter the user will select from the calendar drop down (icon) the period for which the report is to be displayed. If only the **period from** and not the **period to** is completed then the 30 days rolling view graph will be displayed. The graph displayed will show 30 days incidents till the date stated on the period **"From"** date. If the user completes the date from and date to parameters then the graph and report will be based on the stated dates.

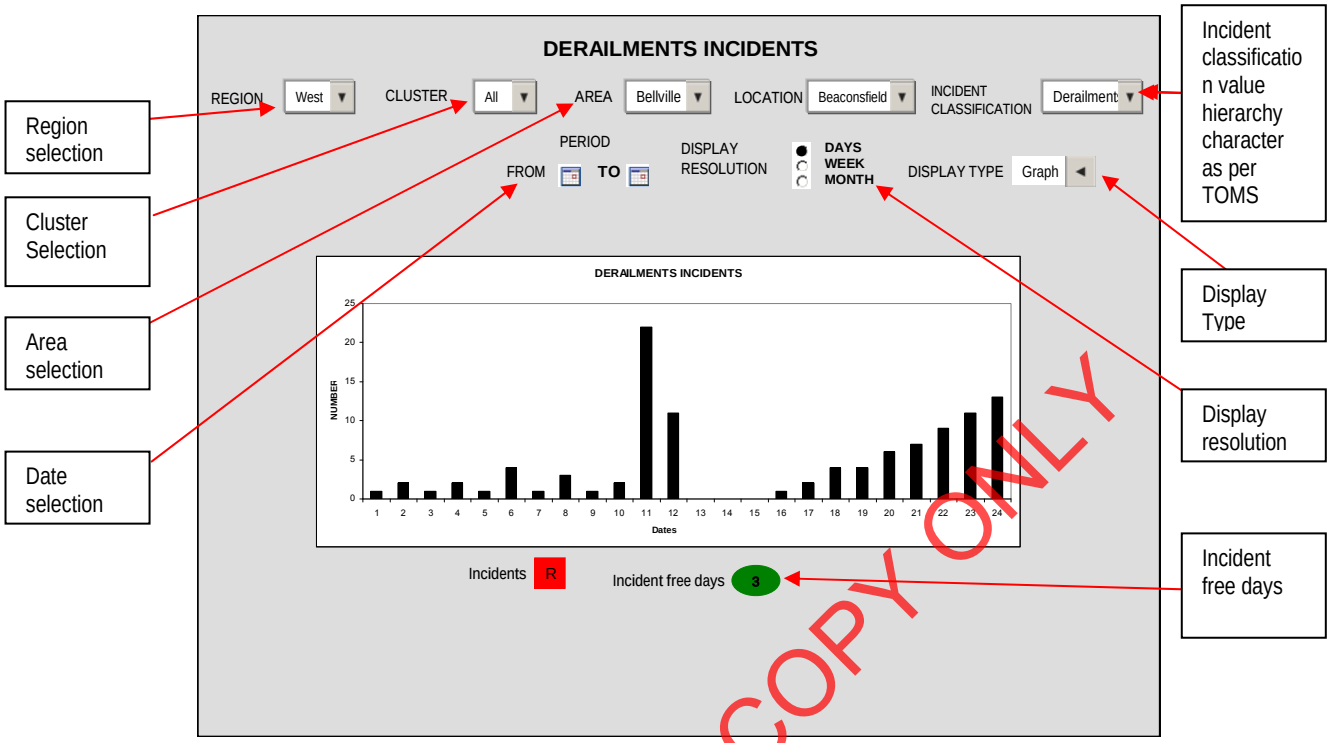
Display Resolution (Day, Week, Month) - On this parameter if the user selects a "Day" then the graph will display a 30 day rolling view, and if "Week" is selected the graph will display a 52 week rolling view and if the user selects a "Month" then a graph with a 24 months rolling view will be displayed.

Display Type (default to Graph) – on this parameter the user can select Graph or Detail. If Graph is selected then the graph will be displayed based on the selection and if "Detail" is selected then a report is displayed. Detail can only be selected with the day resolution only.

After completing the above fields the user will execute the report to generate either a bar graph or detail report for the incidents to be displayed on the dashboard. The bar graph will have a "Y" axis showing the number of incidents and an "X" axis showing the rolling 30 days.

If the user selects "All regions, a day resolution and display type defaulted to Graph", then the sum of all derailment incidents for all the regions that took place will be displayed i.e. All regions = 15 and a corresponding bar graph with the 30 days rolling view will be displayed. If no incidents took place on certain days, that will be reflected on the graph as shown below, e.g.

All Regions Derailments

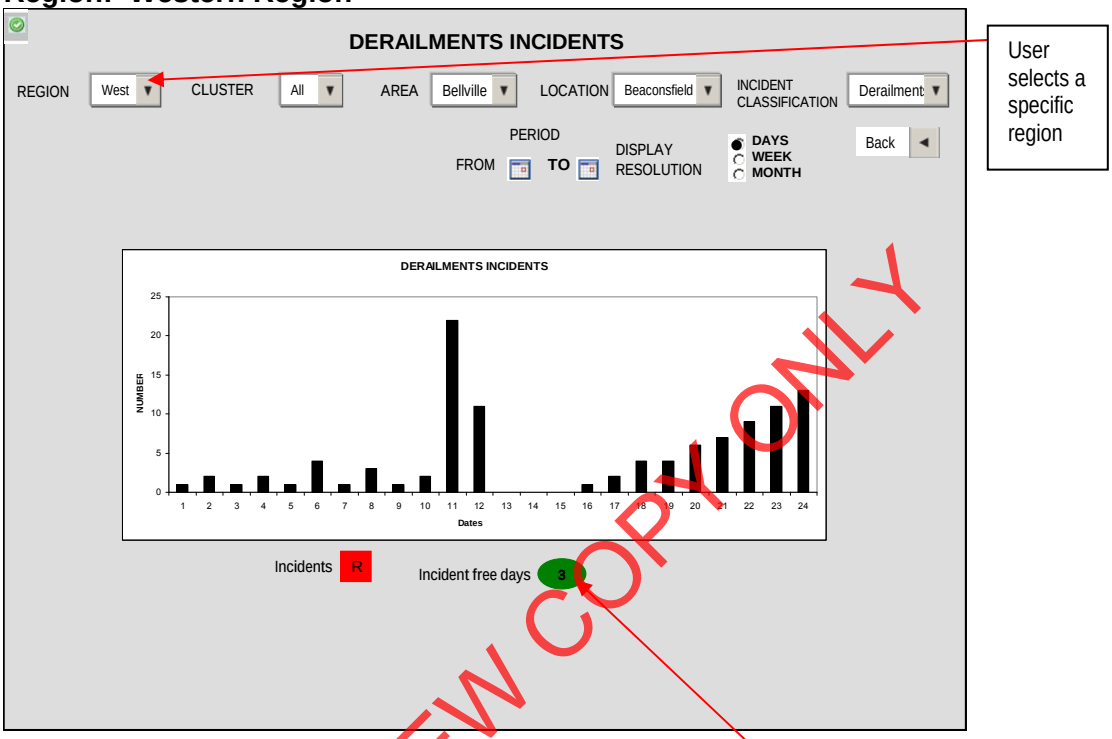


The graph provides a summarised view of all the derailments that occurred on a daily basis within Transnet Freight Rail – this view can be further drilled down to individual regions for a detailed report.

This functionality must allow the user to drill down to a yard level with a 30 day rolling view. The dashboard will display; daily, weekly or monthly reported incidents depending on the display resolution selected by the user.

To view a specific region, for example if the user selects Western Region from the drop down list, then the derailment incidents for that specific region will be displayed. This report will display any incident classified and captured as derailment See below:

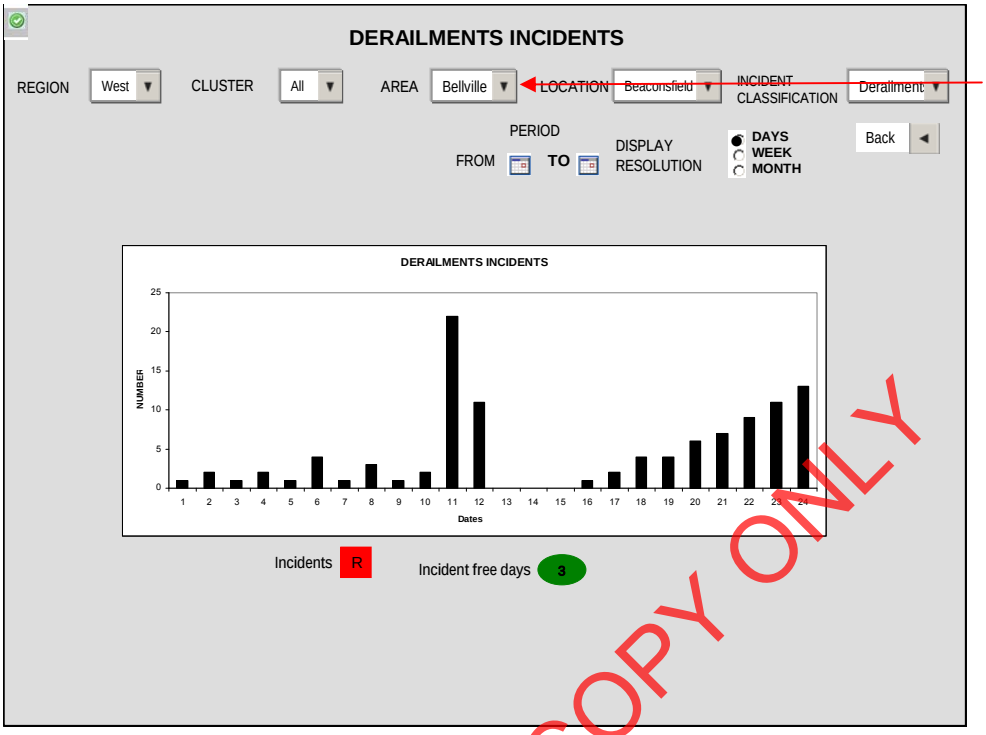
Region: Western Region



The bar graphs will display a 30 day rolling view with incident free days shown. This functionality will allow users to view previous and current reports for comparison reasons, management reporting and auditing purposes. If the user selects only a specified region, the graph will show only the incident selected for that region i.e Western = 12 derailments. For a detailed view the user will complete the applicable parameters as provided on drop down selection list.

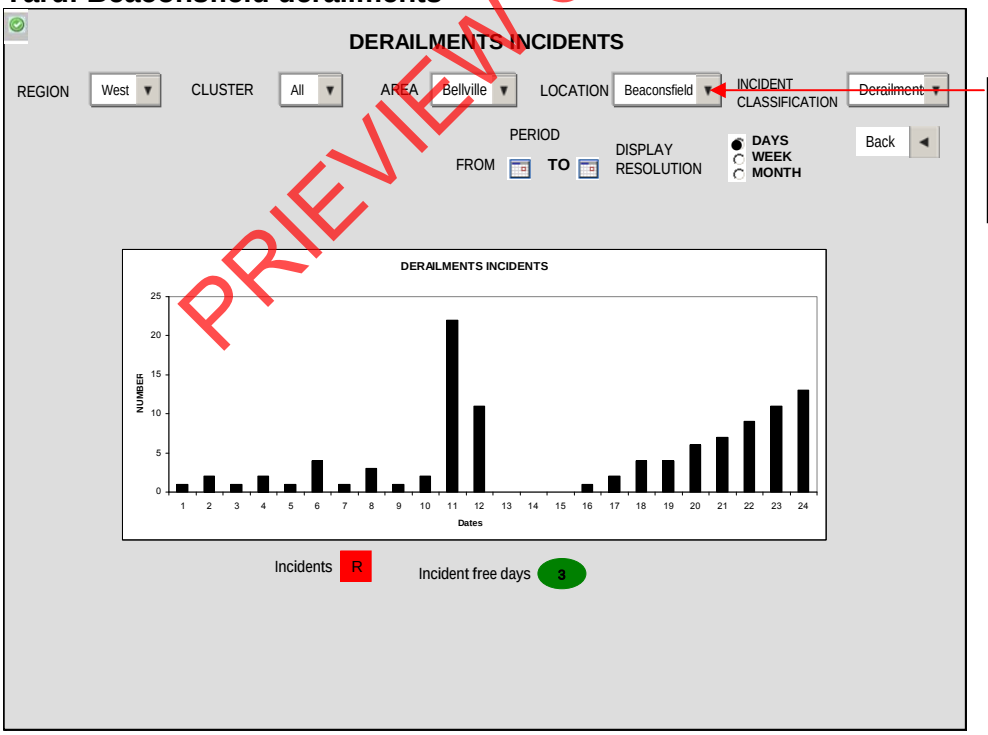
To view a detailed report of the selected incident i.e derailment, the user will select the Area to view the actual number of derailments that took place in that specific area belonging to the selected region. The drill down will allow the user to select and view each area's safety KPIs as per the region and the cluster selected. This view will only show incidents that occurred in that specific area as per the user's selection. i.e Bellville = 5 derailments. Incidents free days will be shown on the graph for that selected area.

Area: Bellville derailments



User selects a specific area

Yard: Beaconsfield derailments

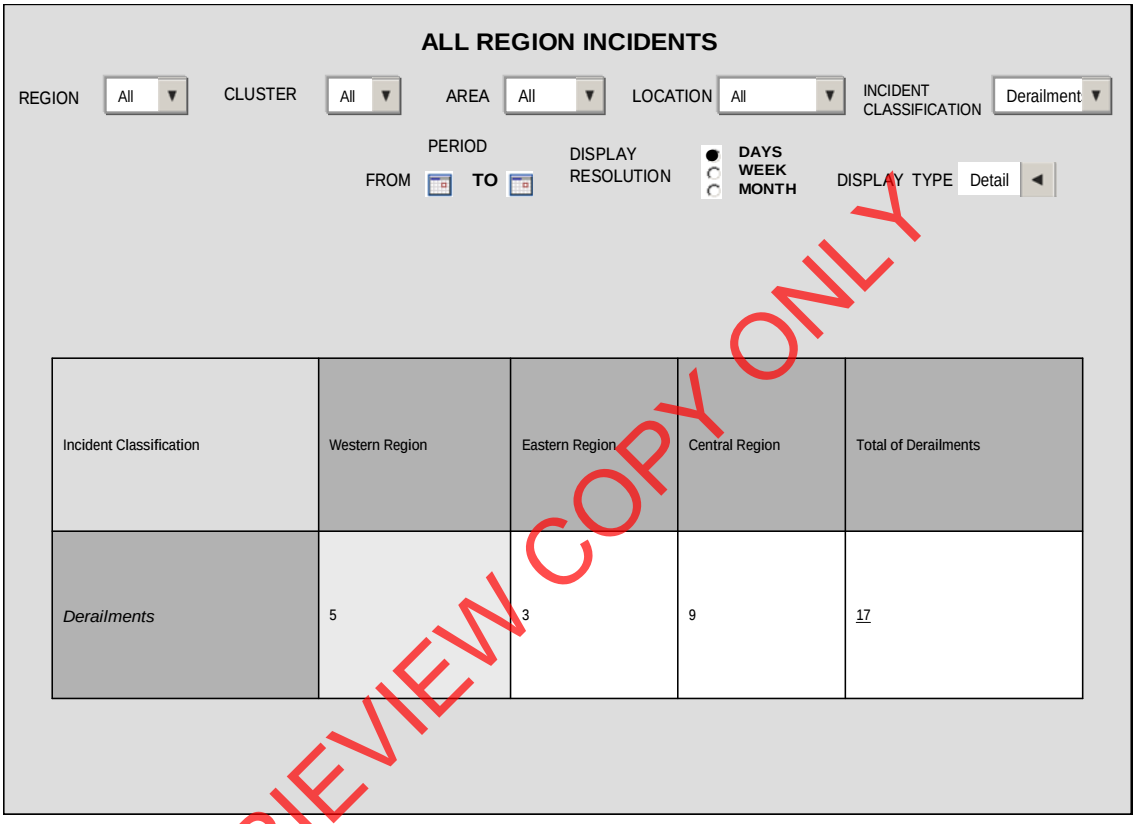


User selects a specific yard

To view the yard where the derailment/s took place, then the user will have to select the location drop down list provided on the selection menu. When the user selects a yard, this will be influenced by the region, cluster and area already selected.

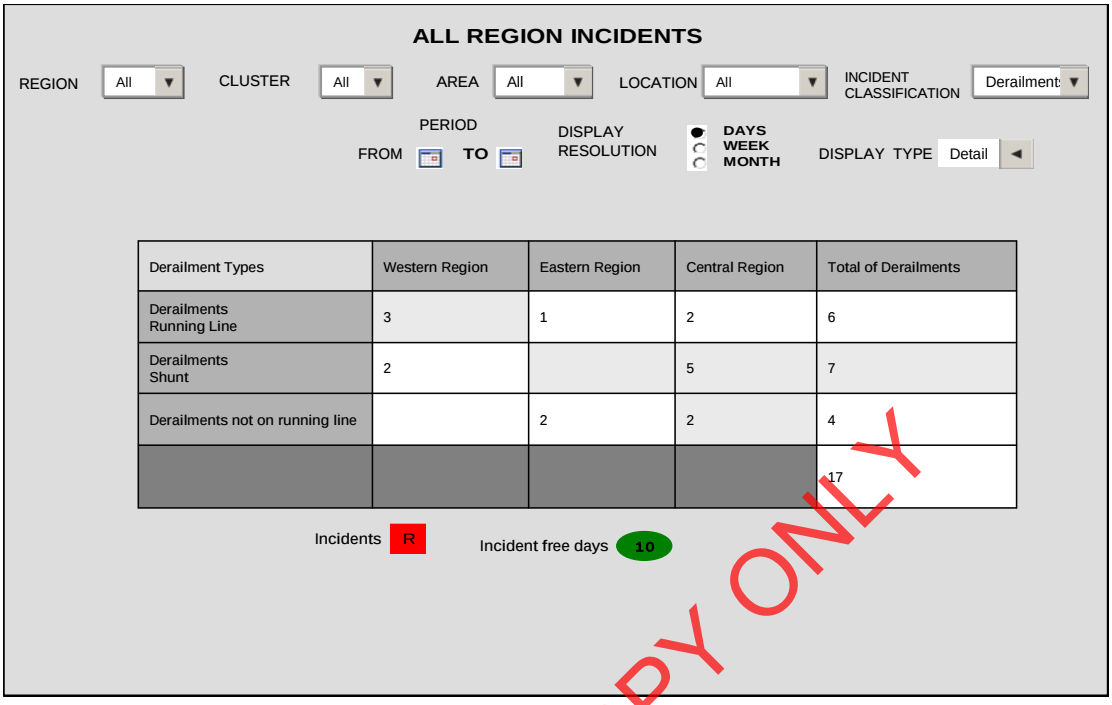
The graph will display the derailment incidents captured and reported in that specific yard as they occurred.

If the user selects “All regions, a day resolution and display type Detail”, then the sum the derailment incidents for the specified period per region that took place will be displayed as shown below, e.g.



Incident Classification	Western Region	Eastern Region	Central Region	Total of Derailments
Derailments	5	3	9	17

When the user double clicks on the total number of derailments”, the following detail will be displayed.



ALL REGION INCIDENTS

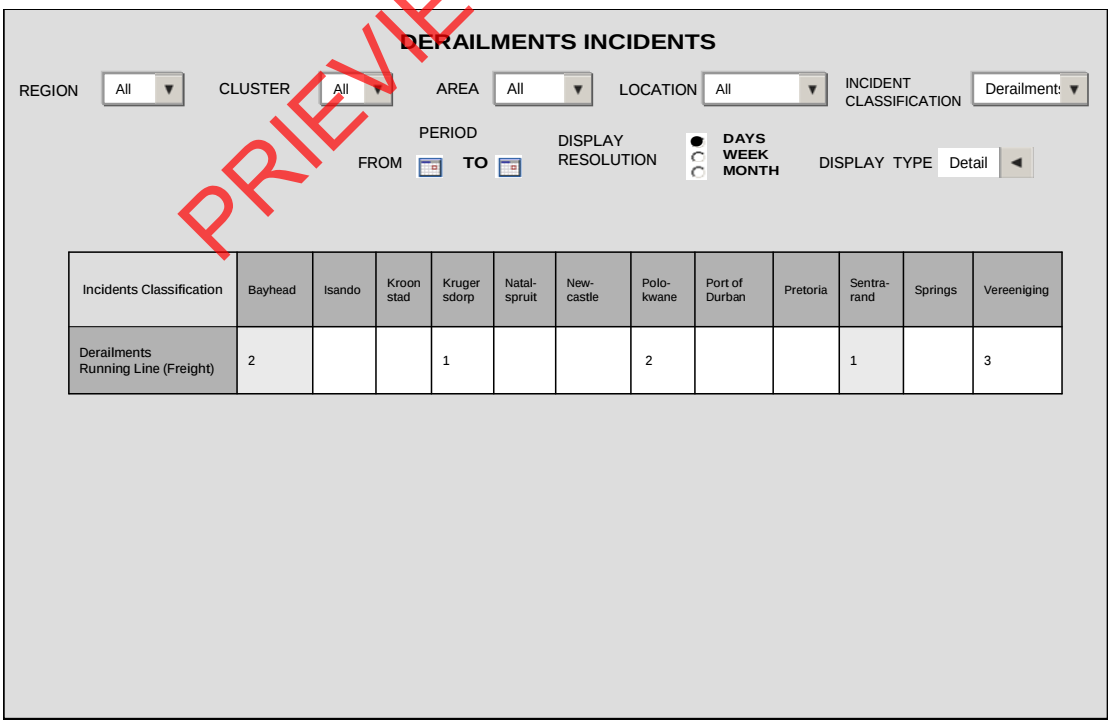
REGION: All | CLUSTER: All | AREA: All | LOCATION: All | INCIDENT CLASSIFICATION: Derailment

PERIOD FROM TO | DISPLAY RESOLUTION: DAYS / WEEK / MONTH | DISPLAY TYPE: Detail

Derailment Types	Western Region	Eastern Region	Central Region	Total of Derailments
Derailments Running Line	3	1	2	6
Derailments Shunt	2		5	7
Derailments not on running line		2	2	4
				17

Incidents R | Incident free days 10

When the user double clicks on the number of derailment Incidents type per region", the report displayed will be broken down per area as seen below the further the user drills down, this report will display the location where the incident took place.



DERAILMENTS INCIDENTS

REGION: All | CLUSTER: All | AREA: All | LOCATION: All | INCIDENT CLASSIFICATION: Derailment

PERIOD FROM TO | DISPLAY RESOLUTION: DAYS / WEEK / MONTH | DISPLAY TYPE: Detail

Incidents Classification	Bayhead	Isando	Kroon stad	Kruger sdorp	Natal-spruit	New-castle	Polo-kwane	Port of Durban	Pretoria	Sentra-rand	Springs	Vereeniging
Derailments Running Line (Freight)	2			1			2			1		3

Column description:

- Derailment Type - Different classification of derailment as defined on the SAP system.
- Total number of Derailments - Total number of derailments. This will provide a link to drill down to a detail level.

Annexure A: Value Hierarchy for incident classification as specified by RSR:

- **DERAILMENTS DURING MOVEMENT OF ROLLING STOCK**
  - Derailment during tippler activities
  - Derailment of rolling stock on a line other than a running line
  - Derailment of rolling stock on a running line

- **COLLISIONS DURING MOVEMENT OF ROLLING STOCK**
  - Collision between rolling stock on a running line
  - Collision with a stop block (other than on a running line)
  - Collision with a stop block on a running line
  - Collision of rolling stock other than on a running line
  - Collision of rolling stock with an obstruction other than on a running line
  - Collision of rolling stock with an obstruction on a running line (including road vehicles colliding with rolling stock)

- **LEVEL CROSSING OCCURRENCES**
  - Collision between rolling stock and a road vehicle(s) (including motor vehicles, bicycle or animal-drawn vehicles) at a recognized level crossing on a running line
  - Collision between rolling stock and a road vehicle(s) (including motor-powered, bicycle or animal-drawn vehicles)) on any line other than a running line (including yards, sidings and private sidings) at a recognized level crossing
  - A person(s) struck by rolling stock at a recognized pedestrian level crossing
  - A person(s) struck by rolling stock at a recognized road level crossing

- **UNAUTHORIZED MOVEMENTS (ROLLING STOCK MOVEMENT EXCEEDING THE LIMIT OF AUTHORITY)**
  - Signal passed at danger (SPAD) on a running line
  - Signal passed at danger (SPAD) on any other line

- **PERSONS STRUCK DURING MOVEMENT OF ROLLING STOCK (other than at level crossings)**
  - Occurrence where an employee is struck by rolling stock on a running line
  - Occurrence where a contractor or contractor's employee is struck by rolling stock on a line other than a running line
  - Occurrence where an employee is struck by rolling stock on a line other than a running line

- **PEOPLE RELATED OCCURRENCES: trains outside station platform areas (in section)**
  - Occurrence where an employee fell or was pushed from inside a moving or stationary train
  - Occurrence where a contractor or contracto's employee fell or was pushed from inside a moving or stationary train

- **PEOPLE RELATED OCCURRENCES: platform-train interchange**
  - Occurrence where a contractor or contractor's employee fell on the platform whilst entraining/detraining a stationary or moving train
  - Occurrence where an employee fell on the platform whilst entraining/detraining a stationary or moving
  - Occurrence where a contractor or contractor's employee fell between the train and the platform whilst detraining a stationary train
  - Occurrence where an employee fell between the train and the platform whilst entraining/detraining a stationary or moving train

- **PEOPLE RELATED OCCURRENCES: station infrastructure**
  - Occurrence resulting in injuries and fatalities to an employee due to infrastructure defects in a public area of the station
  - Occurrence resulting in injuries and fatalities to a contractor or contractor's employee due to infrastructure defects in a passenger area of the station
  - Occurrence resulting in injuries and fatalities to a contractor or contractor's employee due to infrastructure defects in a public area of the station
  - Occurrence resulting in injuries and fatalities to an employee due to infrastructure defects in a passenger area of the station

- **ELECTRIC SHOCK OF PEOPLE OCCURRENCES**
  - Electrical shock to a contractor or contractor's employee on the network infrastructure
  - Electrical shock to an employee whilst positioned on or part of rolling stock
  - Electrical shock to a contractor or contractor's employee whilst positioned on or part of rolling stock
  - Electrical shock to an employee in the public area of a station
  - Electrical shock of a contractor or contractor's employee in the public area of a station
  - Electrical shock of a contractor or contractor's employee in the passenger area of a station
  - Electrical shock to an employee in the passenger area of a station

- **SECURITY INCIDENTS CATEGORIES**
- **THEFT OF ASSETS IMPACTING ON OPERATIONAL SAFETY**
  - Theft of rolling stock components in yards (staged)
  - Theft of rolling stock components in section
  - Theft of ancillary equipment including public address systems, information boards, CCTV
  - Theft of civil infrastructure components in yards and sidings

- Theft of overhead traction equipment in section
- Theft of overhead traction equipment in yards and sidings
- Theft of train control equipment (signalling) in section
- Theft of train control equipment (signalling) in yards and sidings
- Theft of civil infrastructure components in section

Optional time periods to run the reports

- **Weekly:** From Monday to Sunday, will be based on reported incidents,
- **Monthly:** From the 1st of a month to the last day of the month
- **Quarterly**: Jan-March / April-June / July-Sept / Oct-Dec
- **Annually**: Same as financial period, April to March.

- Simultaneous data requirements (from other projects / requests / applications)

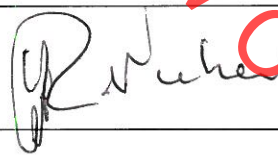
  - To explore the rate of safety incidents performance indicators within a region, area, yard/depot, customer siding from an operational level.

- Minimum display requirement - a bar graph per location.

  - Bar graph
  - Detail report

- Proposed approach (best way to solve current needs/issues)

  - To be decided
  - Consider adding reasons/likely causes for safety incidents
  - Consider adding time periods when the incidents are occurring
  - Ensure Compliance to Railway Safety Regulatory requirements
  - Establish the facts on what happened
  - Define/measure incidents trends
  - Develop controls aimed at prevention, and
  - Enable swift Management action to occurrences happening on the Regions, Areas and Yard/Depots controlled network

Signatories	Role	Signature	Date	Accountability (I hereby declare that I have reviewed this document and it …)
	ICTM – Programme Management			… is within the scope of the project / programme as defined
Themba Mahenye	Process Owner		22/07/09	… correctly defines the business context and measure … references the correct business processes … correctly describes related available data and source systems … identified the current utilisation of the measure
	Functional MIS representative (where available)			co-sign with process owner and … designed the display such that it will fit with other dashboards
	Performance Enablement		22/07/09	… the KPI definition is correct / have been added to the list of definitions … designed the display such that it will fit with other dashboards
Mark Snyders	ICTM – Portfolio Management			… complies with the standard and contains all the required and relevant content
Kesegan Nair	ICTM – Technical / Information Architecture			… provides sufficient information to develop the technical specifications from
Dirk Nieuwoudt	Sponsor		22/07/09	… addresses the business need as defined

TRANSNET

delivering on our commitment to you

freight rail

Transnet Freight Rail Dashboard Functional Specification

KPA Name(s)	Human Factors Management - Refreshers
Project Name	KPI / Depot Dashboard Automation
Project Sponsor:	Dirk Nieuwoudt
Version:	1.2
Document Title:	HC Operational Dashboard Refreshers Specification
Creation Date:	21 May 2009
Revision Date:	July 2009
Document Reference:	
Primary Author(s):	Jacquie Cadger
Co-Author(s):	KPI / Depot Dashboard Automation Team

1. INTRODUCTION

1.1. Overview

- The automated dashboards will provide an electronic and summarised view of refresher training outstanding which will enable management to effectively measure performance in terms of human factors management.

- The human factors management information will be displayed per region, per area, per depot/yard and from a yard/deport viewpoint including train crew, train control and area manager.

1.2. Risks

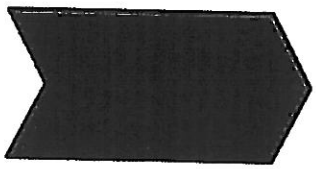
- Some of the current source information sets are manually processed and stored on stand alone applications and hardware
- Although SAP HR has been identified as the primary source for the reports, the integrity of the data is questionable.

BUSINESS SPECIFICATIONS FOR HUMAN FACTORS MANAGEMENT – KPI / DEPOT DASHBOARD AUTOMATION

2. Business Context

2.1 Measurement of refresher training outstanding

Value-added chain diagram



3. Project Context

- Name: Business Specifications – KPI / Depot Dashboard Automation
- Purpose: Automate dashboards in use in yards/depots - this is to provide management a view of people management issues

4. KPI Definitions

4.1 Refresher Training outstanding

- Will measure refresher training
- Will measure refresher training outstanding for all critical positions per Area Manager
- Refresher training is used to stimulate or boost the skills and competencies of the workforce
- This kpi will measure the actual number of current refresher training outstanding, with a view of the progression of outstanding refresher training for the previous 3 month period

5. Measure Context

- Feed to / feed from:

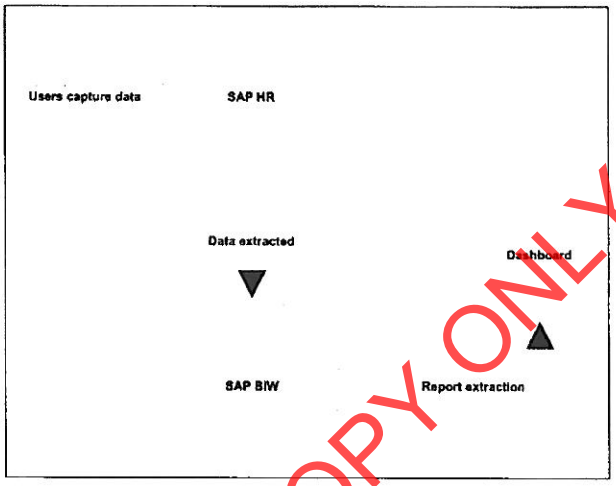
  This measurement stands on its own i.e. it does not use another measure in its calculation nor is it used to calculate a higher level measure. Is however aggregated on various levels per type.

6. Data Description

- Source systems

  Captured into SAP HR and extracted to SAP B.I.W for reporting purposes

- Data flow model:



7 SAP HR Business Rules

7.1 SAP HR – Calculate Refresher Training outstanding

Current (non OBML)

Can be found under Business Event Type with *Refr.* in description
OR
With Business Event Type with *Duties* in description exists

New (OBML)

All new refresher training can be found under Business Event Types linked to Qualification Groups where part of the text description is *OBML*.

A refresher is valid for a period of 2 years (24 months).

Formula:
refresher training is outstanding = if current date > highest date of refresher training + 24 months

8. Solution Requirements

- Minimum requirements:

Dimensions / parameters:

- Operational structure; starting on location level and aggregated to area, cluster, regional and TFR level

Reporting periods: Daily, Weekly, Monthly
Graphics: Printable bar
Ability to navigate between levels i.e yard/depot, customer sidings, etc

9. Solution Proposal

- Solution detail:

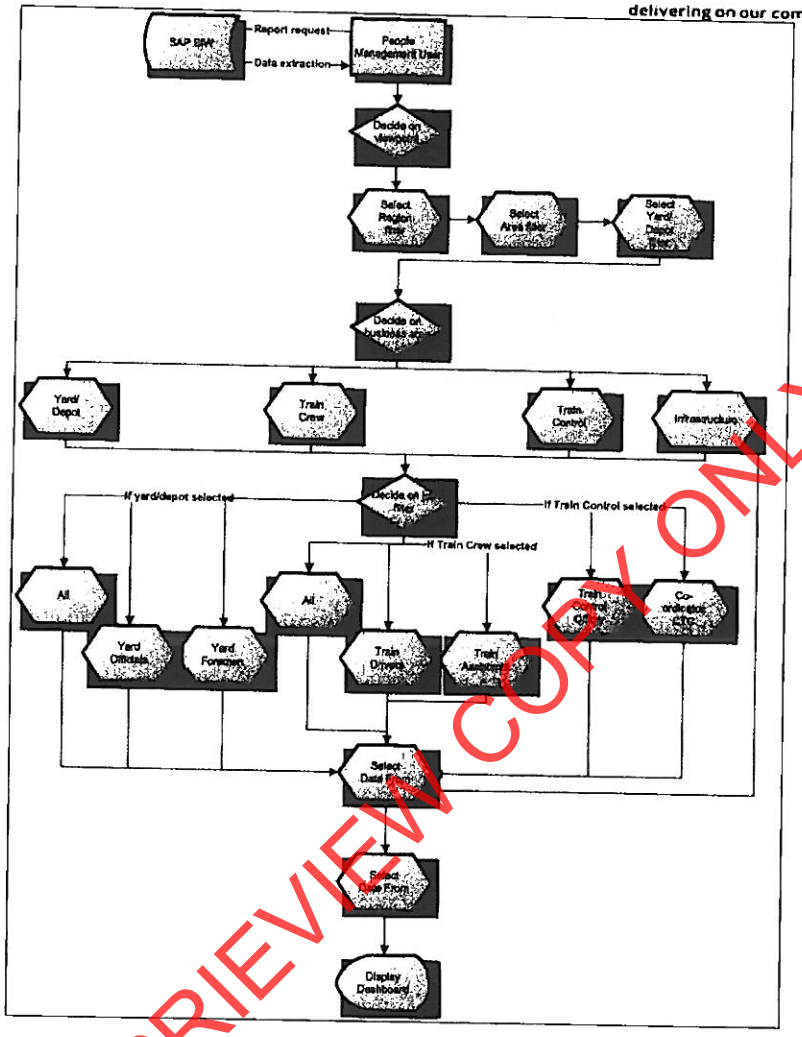
On the dashboard a link will be published "Human Factors Management - Refresher Training Outstanding". The user logs on to the application by providing a valid username and password. After logging on successfully the main menu will be displayed with a list of different operational categories, and then select the applicable KPI with the parameters to completed the report execution

Dashboard Data Presentation:

9.1. Bar graphs

- A bar graph or table will be displayed indicating all relevant refresher training outstanding (dependant on the selection made by user of the under-mentioned levels).

9.1.1 KPI / Depot Dashboard Automation will display as follows:



9.1.2. Filters explained:

Region filter
Purpose: display a drop down list with the following selection:

- All
- Western
- Eastern
- Central

Personnel Area filter
Purpose: display a drop down list for selection:
Business rules:

- if a Personnel Area is selected, only refreshers for the selected Personnel Area will be displayed

Personnel Sub Area filter
Purpose: display a drop down list for selection:
Business rules:

- if a Personnel Area was selected in the Personnel Area filter, then the drop down selection list must display all Personnel Sub Areas relevant to the selected Personnel Area
- if a Personnel Sub Area is selected, only refreshers for the selected Personnel Sub Area will be displayed

Org Unit filter
Purpose: display a drop down list for selection:
if a Personnel Sub Area was selected in the Personnel Sub Area filter, then the drop down selection list must display all Org Units relevant to the selected Personnel Sub Area
Example values:

- All
- Mainline & Heavy Haul Ermelo
- Train Personnel 10E Ermelo
- Architecture Cape Town
- .....

Business rules:

- if an org unit is selected, only refreshers for the selected org unit will be displayed

Functional Classification filter
Purpose: display a drop down list for selection with the following selection:

- All
- Yards
- Train Crew
- Train Control
- Infrastructure

Job filter
Purpose: display a drop down list for selection:
Business rules:

- if *All* is selected in the Functional Classification filter, the job drop down list will not display
- if *Yards* is selected in the Functional Classification filter, the drop down list must display the following for selection
  - All
  - Yard Officials
  - Yard Foremen
- if *Train Crew* is selected in the Functional Classification filter, the job drop down list must display the following for selection
  - All
  - Train Drivers
  - Train Assistants
- if *Train Control* is selected in the Functional Classification filter, the job drop down list must display the following for selection
  - All
  - Train Control Officers
  - Co-ordinator CTC
- if *Infrastructure* is selected in the Functional Classification filter, the job drop down list will not display

Date from filter
Purpose: display a drop down list calendar for date selection:
Business rules:

- The default value must be set to the 1st day of the previous calendar month

Date to filter
Purpose: display a drop down list calendar for date selection:
Business rules:

- The default value must be set to the last day of the previous calendar month

The "Date From" and "Date To" filters are used to determine the reporting period.

Display Resolution filter
Purpose: make a selection of the data resolution to be displayed
Business rules:

- If days is selected - 30 days data will be displayed
- If week is selected - 52 weeks of data will be displayed
- If month is selected - 24 months of data will be displayed
- All of the above selections are bound by the period selected

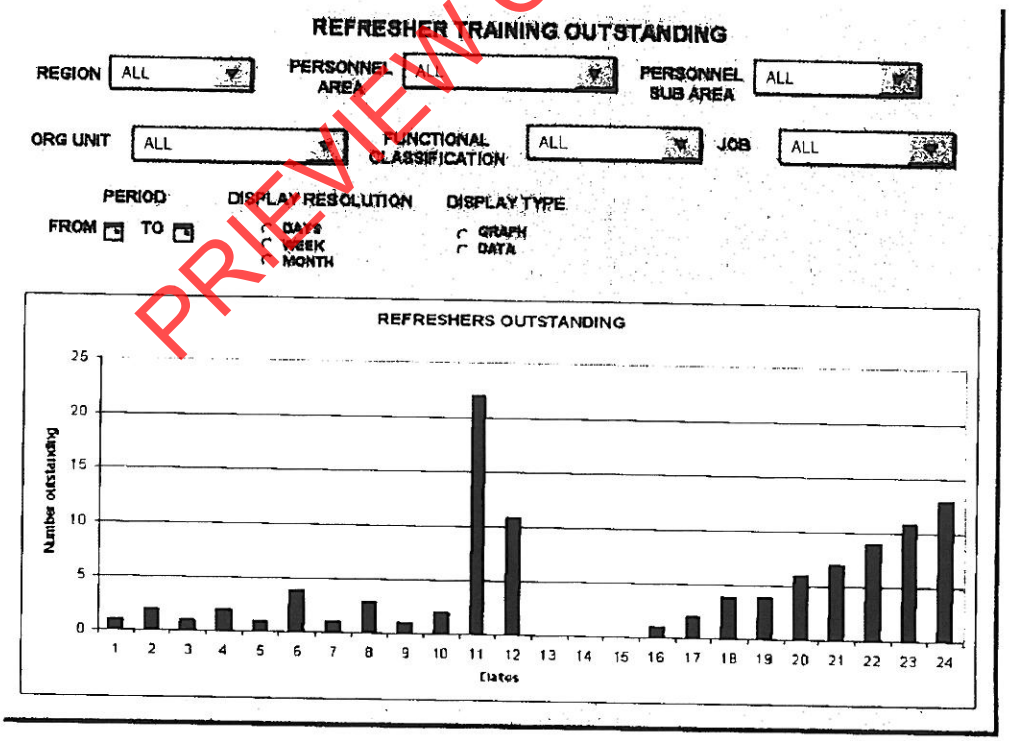
Display Type filter
Purpose: make a selection of the type of display

- If graph is selected - a bar graph will display
- If data is selected - a table containing the relevant detailed data will be displayed.

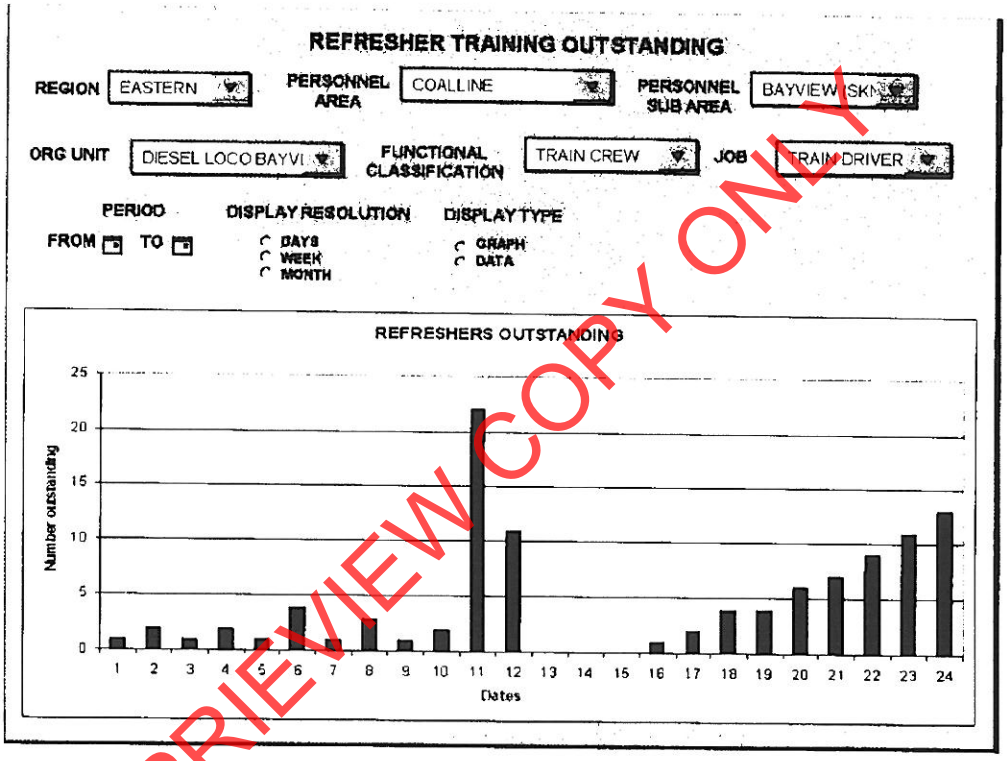
After completion of the above filters, the user will execute the report to generate the display.

9.1.3 Dashboard layout examples

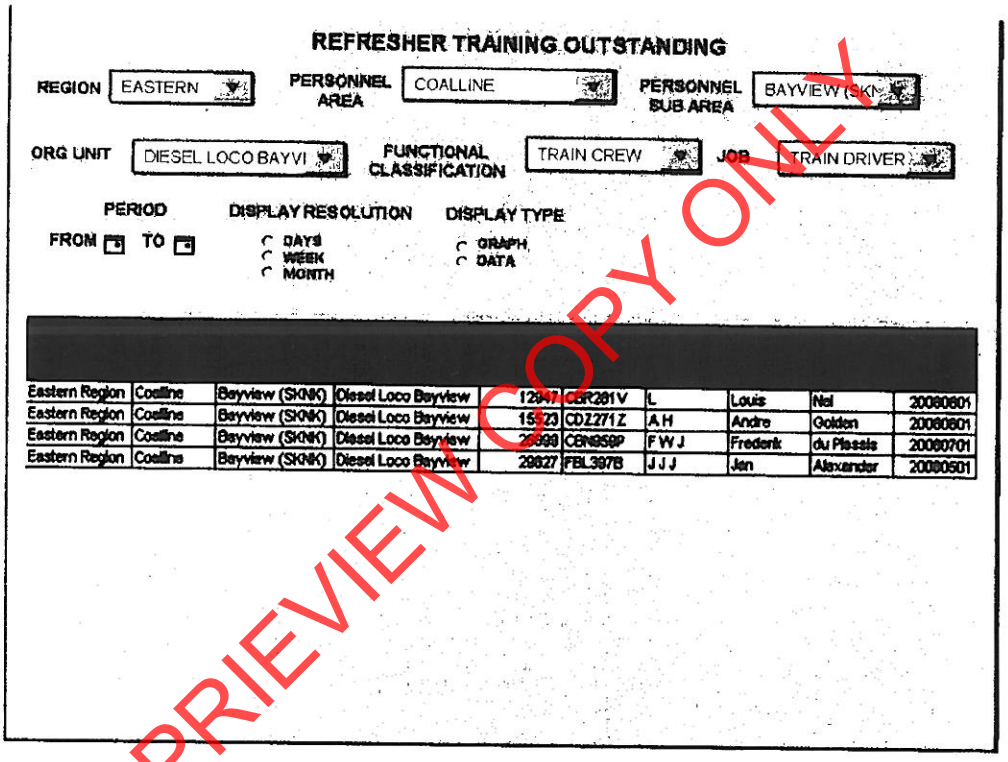
Scenario 1 -
Region filter = All
Personnel Area filter = All
Personnel Sub Area filter = All
Org Unit filter = All
Functional Classification = All
Job = All
Display Type = Graph



Scenario 2 -
Region filter = Eastern
Personnel Area filter = Coalline
Personnel Sub Area filter = Bayview (SKNK)
Org Unit filter = Diesel Loco Bayview
Functional Classification = Train Crew
Job = Train Drivers
Display Type = Graph



Scenario 3 -
Region filter = Eastern
Personnel Area filter = Coalline
Personnel Sub Area filter = Bayview (SKNK)
Org Unit filter = Diesel Loco Bayview
Functional Classification = Train Crew
Job = Train Drivers
Display Type = Data



REFRESHER TRAINING OUTSTANDING

REGION: EASTERN | PERSONNEL AREA: COALLINE | PERSONNEL SUB AREA: BAYVIEW (SKN

ORG UNIT: DIESEL LOCO BAYVI | FUNCTIONAL CLASSIFICATION: TRAIN CREW | JOB: TRAIN DRIVER

PERIOD — FROM TO

DISPLAY RESOLUTION: DAYS / WEEK / MONTH

DISPLAY TYPE: GRAPH / DATA

Eastern Region	Coalline	Bayview (SKNK)	Diesel Loco Bayview	12947	CBR281V	L	Louis	Nel	20080601
Eastern Region	Coalline	Bayview (SKNK)	Diesel Loco Bayview	15923	CDZ271Z	A H	Andre	Golden	20080601
Eastern Region	Coalline	Bayview (SKNK)	Diesel Loco Bayview	29893	CEN859P	F W J	Frederik	du Plessis	20080701
Eastern Region	Coalline	Bayview (SKNK)	Diesel Loco Bayview	29827	FBL397B	J J J	Jan	Alexander	20080501

Signatories	Role	Signature	Date	Accountability (I hereby declare that I have reviewed this document and it ...)
Pedro Pretorius	ICTM – Programme Management			... is within the scope of the project / programme as defined
~~Rajeshree Moodley~~ Johannes Makhusha	Process Owner			... correctly defines the business context and measure ... references the correct business processes ... correctly describes related available data and source systems ... identified the current utilisation of the measure
Pieter van Niekerk	Functional MIS representative (where available)			co-sign with process owner and ... designed the display such that it will fit with other dashboards
Pieter van Niekerk	Performance Enablement		09/08/06	... the KPI definition is correct / have been added to the list of definitions ... designed the display such that it will fit with other dashboards
Mark Snyders	ICTM – Portfolio Management			... complies with the standard and contains all the required and relevant content
Kesegan Nair	ICTM – Technical / Information Architecture			... provides sufficient information to develop the technical specifications from
Dirk Nieuwoudt	Sponsor		09/08/06	... addresses the business need as defined

Signed on behalf of Johannes Makhusha by Danie Barnard.