

## Transnet Freight Rail Dashboard Overview Functional Specification

Project Name	KPI / Depot Dashboard Automation
Project Sponsor:	Dirk Nieuwoudt
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Co-Author(s):	
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## 1. BACKGROUND

The Depot Dashboard Automation forms part of the TFR Business Intelligence programme. It is a project under the Meeting Decks / Dashboards Automation work stream.



This project is the first to be formally established within this work stream and as such will also provide additional content related to the broader programme.

Automation of Reporting:

The objectives with automation of reports and dashboards are to:

- Ensure reporting from a single source of data to provide a common basis for decisionmaking and improving accessibility of data
- Implement a common measurement system based on shared organisation logic
- Standardise reporting on these measures to facilitate ease of use within and across different types of dashboards
- Enable richer data views which increases flexibility in reporting (including role-specific customisation and responses to changes) and the understanding / analysis of underlying trends
- Update presentations (dashboards / reports) on a more regular and in a timely manner and thereby improve data availability
- Eliminate non value adding activities (drawing and updating of graphs) and free up staff for more value-adding activities
- Improve data management by eliminating human error, enabling automated checks and balances and ensuring "fixing at source" should problems be encountered



## 2. OVERVIEW

The purpose is to automate depot dashboards to achieve above objectives and specifically to:

- Ensure timely and regular information provision for team-based performance discussions (with appropriate roll-up's), to thereby
- Removing the current barrier of high volumes of non value-adding activities to prepare these dashboards manually (many similar dashboards, differing in terms of the detail of content)
- The groups of KPI's and display / dashboard configurations are summarised as follows: see file attached

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D:\My Documents\ cky542\Work Files\Da

## 3. APPROACH

- The "depot dashboards" are firstly designed for Depot/Yard use, but expanded with appropriate aggregations to pext hierarchical/logical levels including corporate office requirements (data will be provided from same source systems and same data sets will be used).
- The dashboards will be defined on the basis of the originally agreed "depot dashboards" content and automated based on the following approach:

Q	"As Is" system functionality and data in BW or data available from other sources	"As Is" system functionality but not in use – utilisation to be initiated	System functionality inadequate – changes (mostly minor) required		
Priority	The focus of this project	A next phase / project or change request – depending on agreed overall approach			
Examples	<ul> <li>SPRINT derived data</li> <li>FI/CO financial data</li> <li>McCarthy fleet info</li> </ul>	<ul> <li>Training records / lapsing qualifications</li> <li>Vacancies</li> </ul>	<ul> <li>Substance abuse records</li> <li>Performance mngt (additional info)</li> </ul>		
KPI's	14 + 3 from external sources	2	2		



- The dashboards display will be based on trend graphs with options (parameters that allow drill-down/up. In some instances summary data per period will also be available graphically (e.g. reasons for traffic lost)). Where applicable, detail(s) will be provided in a table format.
- The dashboards display presentation (look and feel) will be similar.
- The dashboards display will utilise the newly acquired Business Objects/Excelcius Tool.

## 4. HOW TO ACCESS THE DEPOT DASBOARD(S)

- This section is based on existing practices. If Business Objects provide a more user friendly route, that will be followed based on this concept
- The user needs to apply for access to the portal and complete the required forms to Service Desk
- The user will log on the intranet. www.transnetfreightrail.co.za
- Type in username and password.
- Click on log on button.





Note: The following screen shown below will display

- 🚈 Transnet Freight Rail Portal -<u>- 0 ×</u> 📌 Favorites 🚱 😒 🎍 🗹 🔸 🗾 ૣ 😋 Back 🔹 🕥 🖌 🔀 🔮 Search 💌 🔁 Go 🛛 Links Address 🧃 http://www.transnetfreigb.rail.co.za/iri/servlet/prt/portal/prtroot/com.sap.portal.navigation.portallauncher.defaul Portal ne Lerato Miva Help | Personalize | Log Off tings and Forums CAR > IATMS | 🖉 Back Forward 💻 Detailed Navigation IATMS Tray Detailed N w cord Depot dashboards Opening page http://10.98.227.110/IATM5\_Map/n Nocal intranel 🖲 🗛 🖉 🖉
- Click on **Operations** tab page.

- The Depot Dashboard link will be displayed
- When the above link is selected the user will have two options to choose from:

+ Functional View. This view displays the KPI's according to focus area (see attached file in Overview)

+ Measurement View: This view displays KPI's individually (see attached file in Overview)

**Note:** The **plus sign** (On Functional and Measurement View) indicates that there is a list of KPI's to be selected.

• The KPI information will be displayed in the following criteria (parameters).



## 5. DASHBOARD DISPLAY

There will be different types of drop down displays and are listed below, the detail of all the structure drop downs will be described on each KPI specification:

- 1. Location structure (based on Locnet)
  - Accountability (Eastern, Western, Central, Train Crew and Intermodal &Containers)
  - Cluster
  - Area
  - Location
  - Period (from and to)
  - Display Resolution (Day, Month and Year)
  - Display Type

Note: for Train Crew the structure excludes Clusters

Additional drop downs

- Incident classification (derailment r/line, derailment TFR: shunt, etc.)
- Discipline responsible (Infrastructure, Operations, etc.)
- Services i.e. origin of train where crew etc. are to be planned from (Natcor 1, Natcor 2, etc)
- Class of Loco (electric, diesel)
- Class of wagon (DZ, CR, etc.)
- Sector (agriculture, automotive, timber etc.)
- Customer
- Deviation Reason (loading problems, derailments, etc.)
- 2. Cost Centre structure (based on SAP Cost Centre structure)
  - Accountability
  - Cost Ceptre Group Cluster
  - Cost Centre Group Area Manager
  - Cost Element Group
  - Unit of Measure (Rands / Number / Hours / Litres / Rands per kilometre)
  - Period (from and to)
  - Display Resolution (Month, Quarter and Year)
  - Display Type

Additional drop downs

- Cost element group
- Costs types
- 3. Organisational structure (based on SAP HC organisation structure)
  - Accountability
  - Personnel area
  - Personnel subarea
  - Organisation unit



- Period (from and to)
- Display Resolution (Day, Month and Year)
- Display Type

Additional drop downs

- Functional classification (All, Critical, Safety related, Yards, Train crew, Train control, Infrastructure)
- Test type (Scheduled test, Random Test, Specific test, Reasonable suspicion, Post incident/near miss test, Return to work test, Voluntary test, Follow-up test, Conformation by observation test)
- Substance (Alcohol, Drugs)
- Contract type (All, Management, Bargaining Unit contracted employees, Bargaining unit – non contracted employees)
- Contract milestone (Signed indicating Transnet is in possession of a signed contract, Interim – indicating an interim assessment has been recorded, Final – indicating a final assessment has been recorded)
- 4. ITP structure (based on Locnet)
  - Services-ITP (as specified for Train and Network planning)
  - Depot-ITP (as specified for Train and Network planning)
  - Period (from and to)
  - Display Resolution (Day, Month and Year)
  - Display Type

Note: There are three display types:

- **Graph - Trend** (single bar graphs, based on parameters selected; displayed in resolution selected – fixed periods e.g. days will generate last 30 days, Weeks the last 52 weeks and Months – last 24 months displayed)

e.	g
----	---

STANDARD LOCATION	
	Additional Drop Downs
	INCIDENT CLASSIFICATION
MONTH	DISCIPLINE RESPONSIBLE ALL
	CLASS OF LOCOMOTIVE
	CLASS OF WAGON ALL
	INFRASTRUCTURE INCIDENT TYPE ALL







- **Graph - Distribution** (reflecting contribution of different categories to a variable e.g. causes for cancellations for a selected period of time)

e.g.

STANDARD LOCATION					
ACCOUNTABILITY ALL CLUSTER ALL AREA ALL LO PERIOD FROM TO DISPLAY TYPE Graph - Distribution V	Additional Drop Downs Additional Drop Downs INCIDENT CLASSIFICATION DISCIPLINE RESPONSIBLE CLASS OF LOCOMOTIVE CLASS OF WAGON INFRASTRUCTURE INCIDENT TYPE ALL				





**Detail - Table** (graph information in table format with additional detail to enable further analysis. Detail to be made available contained in different specification documents and selected by period). e.g.

	STANDARD LOCATION	
	CLUSTER ALL V AREA ALL V	
		Additional Drop Downs
PERIOD		
FROM 📷 TO 📷	Detail - Table	DISCIPLINE RESPONSIBLE
		CLASS OF LOCOMOTIVE ALL
		CLASS OF WAGON



Train number	Depart from	Depart to	Designed total	Traffic type	Loaded total	Empty total	Actual total
<u></u> 2	<u></u> 2‡	<u>2</u> ‡	<u></u> 2‡	<u></u>	<u></u> 2\$	<u></u>	<u></u> 2\$
B1XM 001407 170309	BELLVILLE	SALKOR	40	MALT EOHP	23	0	23
X1V1 004436 170309	KKK/S142395	KLAWER	40	GENERAL	2	14	16
B1W1 007321 170309	BELLVILLE	WOR-NOORD	40	BARLEY EOHP	32	0	32
B1V1 004443 170309	BELLVILLE	KLAWER	40	GENERAL	19	0	19
B1C1 005297 170309	BELLVILLE	CALEDON	40	GENERAL	19	0	19
V1B1 004442 170309	KLAWER	BELLVILLE	40	Empty DZ	0	7	7
B1N1 001107 170309	BELLVILLE	HERMON	40	EMPTY- FKD1	0	19	19
M1A1 002630 170309	MALMESBURY	KAAPSTADPAS	50	GENERAL	35	0	35
V1X1 004405 170309	KLAWER	KKK/S142395	40	GENERAL	32	0	32
B1J1 007771 170309	BELLVILLE	DALJOSAFAT	40	MALT EOHP	7	0	7
M1X1 004409 170309	MALMESBURY	DEH/S140988	40	GENERAL	5	14	19

Note: Where available in real time the dashboard will be created directly from the source system the information will not via BW.

## 6. DEFAULT REQUIREMENTS

- The default on all the structure drop downs will be All.
- When the **period** is selected it will displays the previous 30 days (system limitations and functionality to determine optimum configuration of other periods selected e.g.
  - Up to 6 months days
  - 7 months to 60 months months
  - More than 60 months years)
- The display resolution to be set up with limitations (to make selection easier) once system defaults are known. It would be recommended that if **day** is selected only 30 days are displayed on the graph, if **month** is selected that the last 24 months be displayed and if **week** is selected that the last 52 weeks be displayed and if **quarter** is selected the last 4 quarters are displayed.

\*\*\*\* The following parameters will apply to the **Safety**, **Asset utilisation and Customer Care** dashboards:

**Accountability**: This parameter will provide a drop down list of: All; Western; Eastern; Train Crew; Central & Terminals (Intermodal and Automotive). Terminals to be disaggregated into specific locations (Locnet "areas") i.e. grouped similarly to "Clusters".

**Cluster**: This parameter will provide a drop down list of clusters based on the accountability (region etc.) selected; if "All" is selected then all clusters will be displayed.

**Area**: This parameter will provide a drop down list of areas based on the region and cluster selected; if "All" is selected on the accountability (region etc.)/cluster parameters then all areas will be displayed.



**Location**: This parameter will provide a drop down list of Yards / depots based on the region, cluster and area selected; if "All" is selected on the accountability (region etc.)/cluster/area parameter then all locations will be displayed.

\*\*\*\*The following parameters will apply to **HC** dashboards:

**Accountability**: This parameter will provide a drop down list of: All; Western; Eastern; Central & Terminals (Intermodal and Automotive). Terminals to be disaggregated into specific locations (Locnet "areas") i.e. grouped similarly to "Clusters".

**Personnel Area:** This parameter will provide a drop down list of the personnel areas of the accountability (region etc.) selected; if "All" is selected then the information of all the personnel will be displayed.

**Personnel subarea**: This parameter will provide a drop down list of personnel subareas based for the accountability (region etc.) and personnel areas selected, if "All" is selected on the accountability (region etc.)/personnel area parameters then all personnel subareas will be displayed.

**Organisational unit**: This parameter will provide a drop down list of the organisational units of the personnel subarea selected; if "All" is selected then the information of all the organisational units will be displayed.

\*\*\*\* The following parameters will apply to **Cost Savings** dashboards:

**Accountability**: This parameter will provide a drop down list of: All; Western; Eastern; Central & Terminals (Intermodal and Automotive). Terminals to be disaggregated into specific locations (Locnet "areas") i.e. grouped similarly to "Clusters".

**Cost Centre Group Cluster**: This parameter will provide a drop down list of the cost centre groups clusters of the accountability (region etc.) selected, if "All" is selected then the information of all the cost centre group clusters will be displayed.

**Cost Centre Group Area Manager**: This parameter will provide a drop down list of Cost Centre Group Area Manager based on the accountability (region etc.) and cost centre group cluster selected, if "All" is selected on the accountability (region etc.)/cost centre group cluster parameters then all cost centre group area manager will be displayed.

\*\*\*\* The following parameters will apply to the **ITP** dashboards:

**Services-ITP**: This parameter will provide a drop down list of services according to train and network planning i.e. NATCOR1 NEW ITP, CAPCOR1 ITP etc.

**Depot-ITP**: This parameter will provide a drop down list of depots according to train and network planning i.e. Ermelo Loco, Empangeni Loco.



## 7. TRAINING AND CHANGE MANAGEMENT

- Access guideline(s) will be developed and made available on the intranet.
- Project perspective Change Management will be limited to accessing of the dashboards. Broader utilisation will be handled as a separate project.

## 8. SIGNATURE

Project name TBI	Stream C					
Signatories		Signature		Date		
	addresses the business need as det	fined				
Dirk Nieuwoudt	Project sponsor	OSA	2	12/08/09		
	the KPI definition is correct / have be designed the display such that it will	en added to th fit with other da	e list of definitions as hooards	ons		
Pieter van Niekerk	Performance Enablement	#2		12/8/09		
	complies with the standard and contains all the required and relevant content					
Mark Snyders	Portfolio Management					
	is within the scope of the project / pr	ogramme as de	efined			
Shiraz Kola	Programme Management					
X	provides sufficient information to dev	velop the techni	cal specificatior	ns from		
Kesegan Nair	ICTM – Technical / Information Architecture					



Transnet Freight Rail Dashboard Functional Specification

KPA Name(s)	Human Factors Management - Performance Contracts
Project Name	KPI / Depot Dashboard Automation
Project Sponsor:	Dirk Nieuwoudt
Version:	1.2
Document Title:	HC Operational Dashboard Performance Contracts 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
<b>~</b> `	



#### **1. INTRODUCTION**

#### 1.1. Overview

The automated dashboards will provide an electronic and summarised view of • performance contracts management which will enable management to effectively measure performance in terms of human factors management.

#### 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.

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

#### 2. Business Context

2.1 Measurement of critical vacancies

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 performance contracts

- Will measure how many performance contracts have been concluded against the strength of personnel
- Will measure how many of the performance contracts have been reviewed
- Performance contracts are reviewed 6 monthly i.e. in October and April.

#### 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 – Capture Performance Contracts

All performance contracts must be captured into SAP R3, against the employee, for all contract employees. If this is not present, the employee will be deemed not to have a performance contract in place. Performance contracts are reviewed every 6 months. Each performance contract must have an interim assessment result as well as a final assessment result. If these are not present, the performance contract will be deemed not to have been reviewed.

#### 8. Solution Requirements

- Minimum requirements:
  - Dimensions / parameters:
    - Operational structure; aggregated to area level
  - Reporting periods: Monthly
  - Graphics: Printable bar graphs rolling 4 months

#### 9. Solution Proposal

• Solution detail:

On the dashboard a link will be published "Human Factors Management -Performance Contracts". 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 performance

contracts (dependant on the selection made by user of the under-mentioned levels).

• Area

#### 9.1.1 KPI / Depot Dashboard Automation will display as follows:





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#### 9.1.2. Filters explained:

- Region filter
- Purpose: display a drop down list with the following selection:
  - o All
  - o Western
  - o Eastern
  - o Central
- Personnel Area filter
- Purpose: display a drop down list for selection:
- Business rules:
  - if a Personnel Area is selected, only performance contracts for the selected Personnel Area will be displayed

#### • Personnel Sub Area filter

- Purpose: display a drop down list for selection:
- Business rules:
  - if an 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 performance contracts for the selected Personnel Sub Area will be displayed
- Org Unit filter
- Purpose: display a drop down list for selection:
- if an 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:
  - o All
    - Mainline & Heavy Haul Ermelo
    - Son The in Personnel 10E Ermelo
    - X Architecture Cape Town
  - o .....
- Business rules:
  - if an org unit is selected, only performance contracts for the selected org unit will be displayed

#### • Contract Type filter

- Purpose: display a drop down list with the following selection:
  - o All
    - o Management
    - o Bargaining unit contracted employees
    - o Bargaining unit non contracted employees



#### **Contract Milestone filter**

- Purpose: display a drop down list with the following selection:
  - Signed indicating Transnet is in possession of a signed contract
  - o Interim indicating an interim assessment has been recorded
  - Final indicating a final assessment has been recorded

#### Date from filter

- Purpose: display a drop down list calendar for date selection:
- Business rules:
  - The default value must be set to the 1<sup>st</sup> day of the previous 0 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 tast day of the previous 0 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
  - o 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.



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#### 9.1.3 Dashboard layout examples

Region filter = All Personnel Area filter = All Personnel Sub Area filter = All Org Unit filter = All Contract Type = All Contract Milestone = Final Display Type = Graph





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Region filter = Central Personnel Area filter = All Personnel Sub Area filter = All Org Unit filter = All Contract Type = Management Contract Milestone = Interim Display Type = Graph







Region filter = All Personnel Area filter = All Personnel Sub Area filter = All Org Unit filter = All Contract Type = Management Contract Milestone = Interim Display Type = Data

PERFORMANCE CONTRACTS								
	REGION ALL PERSONNEL AREA ALL PERSONNEL SUB AREA ALL							
ORG UN	ORG UNIT ALL V CONTRACT MANAGEMENT V CONTRACT INTERIM							
	PERIOD FROM TO TO TO CONTH							
Region	Org Unit	Personnel Sub Area	SAP Num	Pens Num	Intials	First Name	Interim Assessment Date	Score
Head Office	Architecture Johannesburg	Johannesburg	43651	FFM856Q	TJ	Terence	Lachenicht	3
Head Office	Business Architecture Johannesburg	Johannesburg	2682	851245R	J	Janis	Myburah	2
Head Office	Business Architecture Johannesburg	Johannesburg	4929	CCFU27F	W	Wilma-marie	Rudman	1
Head Office	Business Architecture Johannesburg	Johannesburg	5013	CCJ014D	DH	Dean	Main	2
Head Office	Business Architecture Johannesburg	Johannesburg	6496	FBL 218Q	MJ	Moreko	Mokwala	3
Head Office	Business Architecture Johannesburg	Johannesburg	30514	FBQ037R	M	Michael	Pelo	1
Head Office	Business Architecture Johannesburg	Johannesburg	41449	FFK635C	TP	Tshwaane	Thokoane	3
Head Office	Business Intelligence Johannesburg	Johannesburg	2145	773353K	E	Eugene	Els	2
Head Office	Business Intelligence Johannesburg	Johannesburg	2572	837312F	MN	Moonyean	Britz	3
Head Office	Head Office Business Intelligence Johannesburg		4512	CBL480Q	88	Boyce	Mwelase	3
Head Office	Head Office Business Intelligence Johannesburg		5980	CDW256Q	KL	Kim	Kruger	3
Head Office	Head Office Business Intelligence Johannesburg		6158	CFK410H	MC	Maxwell	Wienand	3
Head Office	Business Intelligence Johannesburg	Johannesburg	6310	FBC720W	К	Kesegan	Nair	3
Head Office	Head Office Business Intelligence Johannesburg			FBH901U	DS	Dorothea	Martin	3
Head Office	Business Intelligence Johannesburg	Johannesburg	35877	741905G	DR	Daniel	Koegelenberg	3

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



## Transnet Freight Rail Dashboard Functional Specification

KPA Name(s)	Risk, Safety and Compliance			
Project Name	KPI / Depot Dashboard Automation			
Project Sponsor:	Dirk Nieuwoudt			
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Creation Date:	5 May 2009			
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Document Reference:	. ~			
Primary Author(s):	Jacquie Cadger			
Co-Author(s):	KPI / Depot Dashboard Automation Team			
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#### **1. INTRODUCTION**

#### 1.1. Overview

- The automated dashboards will provide an electronic and summarised view of substance abuse incident indicators which will enable management, to measure the performance in terms of safety.
- The substance abuse indicators information will be displayed per region, per Org Unit, per Personnel Sub.

#### 1.1. Risks

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



#### BUSINESS SPECIFICATIONS FOR SUBSTANCE ABUSE INCIDENTS – KPI / DEPOT DASHBOARD AUTOMATION

#### 2. Business Context

- Measurement of substance abuse 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 substance abuse incidents

#### 4. KPI Definitions

- **4.1 Substance abuse** (yard/depot, train crew, train control, infrastructure & area manager view)
- A substance abuse violation occurs whenever an employee is tested positive for alcohol or intoxicating drugs.
- This KPI measures the actual number of incidents

#### 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 EHS and stored on SAP B.I.W for reporting \_ purposes

Data flow model:





#### 7.1 EHS Business Rules

#### 7.1.1 EHS – Capture substance abuse testing result

All substance abuse test results will be captured in EHS, to enable the responsible people involved to take action, monitor and follow-up progress of each activity until final close-out.

#### 8. Solution Requirements

- Minimum requirements:
  - Dimensions / parameters: Operational structure; starting on Personnel Sub Area level and aggregated to Org Unit, regional and TFR level;
  - Graphics: Printable bar graphs
- Additional requirements to optimise this solution:
  - 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.

#### 9. Solution Proposal

• Solution detail:

On the dashboard a link will be published "Substance Abuse Incidents". 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

#### 9.1 Dashboard Data Presentation:

• This will display various bar graphs of all substance abuse incidents that impact the operational performance within the following operational sectors: Each category will have information of the substance abuse performance indicator with a drill down functionality to location level



#### 9.2 KPI / Depot Dashboard Automation will display as follows:





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#### 9.1.2. Filters explained:

#### Region filter

- Purpose: display a drop down list with the following selection:
  - o All
  - o Western
  - o Eastern
  - o Central

#### Personnel Area filter

- Purpose: display a drop down list for selection:
- Business rules:
  - if a Personnel Area is selected, only substance abuse incidents for the selected Personnel Area will be displayed
- Personnel Sub Area filter
- Purpose: display a drop down list for selection
- Business rules:
  - if an 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 substance abuse incidents for the selected Personnel Sub Area will be displayed

#### • Org Unit filter

- Purpose: display a drop down list for selection:
- if an Personnel Sub Area was selected in the Personnel Sub Area filter, then the drop down selection list must display Org Units relevant to the selected Personnel Sub Area
- Example values:
  - o All
  - K Mainline & Heavy Haul Ermelo
  - o Train Personnel 10E Ermelo
  - Architecture Cape Town
  - o .....

#### • Test Type filter

- Purpose: display a drop down list for selection with the following selection:
- Scheduled test
  - The unsystematic testing of Transnet employees at the discretion of Transnet, irrespective of position, who are subject to random, non-discriminatory selection screening on entry or re-entry to Transnet premises.
- Random test
  - The testing of Transnet employees in certain categories of employment, at the discretion of Transnet, irrespective of position, who are automatically screened on entry or re-entry to Transnet premises.



 When a call out or after hours emergency occurs, and employees are automatically tested prior

their annual medical examinations



automatically tested prior to entry or re-entry to the workplace. It is also used as a proactive measure to ensure compliance with applicable legislation and includes the routine testing of drivers for alcohol and drugs during

Reasonable suspicion test

- Occurs when an employee or contractor appears to be under the influence of alcohol/drugs
- Post incident/near miss test
  - Occurs as soon as possible after any potentially recordable injury or incident on Transnet premises
- Return to work test
  - Is when any employee in rehabilitation may be required to undergo regular random testing for a specified period
- Voluntary test
- Follow up test
  - Occurs when any employee who has received a written warning for any alcohol or drug related misconduct and may be required to undergo a breathalyser test each time he/she enters or re-enters Transnet premises.
- Confirmation by observation test
  - Occurs when a person refuses to take a breathalyser test, or is unable to provide an adequate breath sample, or there is reasonable suspicion of the individual being intoxicated or under the influence of drugs or alcohol and confirmation of this is derived from other observable evidence
  - if an Org Unit was selected in the Org Unit filter, then the drop down selection list must display all Personnel Sub Areas relevant to the selected Org Unit
  - if a Personnel Sub Area is selected, only substance abuse incidents for the selected Personnel Sub Area will be displayed

Substance filter

- Purpose display a drop down list for selection with the following selection:
  - o Alcohol
  - o Drugs
- Date from filter
- Purpose: display a drop down list calendar for date selection:
- Business rules:
  - The default value must be set to the 1<sup>st</sup> day of the current 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 current date





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

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





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## Western Region substance abuse incidents





#### SUBTANCE ABUSE REGION WESTERN V PERSONNEL ALL PERSONNEL ALL • • AREA SUB AREA ORG UNIT TEST SCHEDULED . SUBSTANCE ALL ALL \* • TYPE PERIOD DISPLAY RESOLUTION C DAYS C WEEK C MONTH FROM TO SUBSTANCE ABUSE 25 20 Positive tests 15 10 5 0 10 11 12 13 14 15 Dates 16 17 18 19 20 21 4 5 6 8 9 🤞 22 23 24 13 PRIEN

#### Scheduled Testing substance abuse incidents in Western Region



			-	
Signatories	Role	Signature	Date	Accountability (I hereby declare that I have reviewed this document and it)
	ICTM – Programme			is within the scope of the project programme as defined
	Management			
	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
	Functional MIS			co-sign with process owner and
	representative (where			designed the display such that it will fit with other dashboards
	available)			
	Performance Enablement			the KRL 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			complies with the standard and contains all the required and relevant content
,	Management			
Kesegan Nair	ICTM – Technical /			C. provides sufficient information to develop the technical specifications from
	Information Architecture			
Dirk Nieuwoudt	Sponsor		7	addresses the business need as defined
		$\mathbf{O}$		


Transnet Freight Rail Dashboard Functional Specification

KPA Name(s)	Human Factors Management - Vacancies
Project Name	KPI / Depot Dashboard Automation
Project Sponsor:	Dirk Nieuwoudt
Version:	1.2
Document Title:	HC Operational Dashboard Vacancies 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
PK-	



### **1. INTRODUCTION**

#### 1.1. Overview

- The automated dashboards will provide an electronic and summarised view of vacancies 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, infrastructure 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.

... questionable.



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

#### 2. Business Context

2.1 Measurement of critical vacancies

Value-added chain diagram

Staff the orga	nisation			-1	
Identify vacancy the relev document	& obtain ant ation	Assessment for staffing/ filling of vacancy	Advertise the vacancy		Assess applicants
Select appl	licant	Approve applicant			,
3. Project (	Context		C		

- 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 Critical vacancies

- Will measure vacancies in yards/depots for positions:
  - Yard Officials and Yard Foremen
    - o Train Drivers and Train Assistants
    - Train Control Officers and Co-ordinator (CTC)
- Will measure vacancies for all critical positions per Area Manager
- A vacancy is an opening or available job within the organisation
- A critical vacancy is job opening in a position which is essential to the effective operations of the organisation
- This kpi will measure the actual number of current vacancies, with a view of the progression of the filling of vacancies 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 - Capture vacancy

All vacancies are maintained in the organizational structure within SAP HR. Vacancies are linked to a position number within an Organisational Unit. The organizational structure in SAP R3 has to reflect the reality on the ground. Currently there are no vacancies on the organisational structure. In order for this kpi to be reported on, it is essential that all vacancies are reflected.

### 8. Solution Requirements

• Minimum requirements:

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- Dimensions / parameters:
  - Operational structure; starting on location level and aggregated to area, cluster, regional and TFR level
- Reporting periods: Monthly
- Graphics: Printable bar graphs rolling 4 months as well as in a table format for YTD totals
- 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 -Vacancies". 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 vacancies (dependant on the selection made by user of the under-mentioned levels).
  - Yards
  - Train Crew
  - Train Control
  - Infrastructure
  - Area Manager



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7

# 9.1.2. Filters explained:

# Region filter

- Purpose: display a drop down list with the following selection:
  - o All
  - o Western
  - o Eastern
  - o Central

# • Personnel Area filter

- Purpose: display a drop down list for selection:
- Business rules:
  - if a Personnel Area is selected, only vacancies for the selected Personnel Sub Area will be displayed

# Personnel Sub Area filter

- Purpose: display a drop down list for selection:
- Business rules:
  - if an 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 vacancies for the selected Personnel Sub Area will be displayed

# • Org Unit filter

- Purpose: display a drop down list for selection:
- if an 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:
  - o All 🦯
  - o Mainline & Heavy Haul Ermelo
  - Train Personnel 10E Ermelo
  - Architecture Cape Town
- Business rules
- Business rules:
  - if an org unit is selected, only vacancies for the selected org unit will be displayed

# • Job Classification filter

- Purpose: display a drop down list for selection with the following selection:
  - o All
  - o Critical
  - o Safety Related
  - o Yards
  - o Train Crew
  - o Train Control
  - o Infrastructure









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#### • Functional Classification filter

- Purpose: display a drop down list for selection:
- Business rules:
  - if *All* is selected in the Job Classification filter, the job drop down list will not display
  - if *Critical* is selected in the Job Classification filter, the job drop down list will not display
  - if *Safety Related* is selected in the Job Classification filter, the job drop down list will not display
  - if *Yards* is selected in the Job Classification filter, the drop down list must display the following for selection
    - All
    - Yard Officials
    - Yard Foremen
  - if *Train Crew* is selected in the Job 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 Job Classification filter, the job drop down list must display the following for selection
    - All
    - Train Control Officers
    - Co-ordinator OTC
  - if *Infrastructure* is selected in the Job 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 1<sup>st</sup> day of the previous calendar month
- Date to filter
- Purpose: display a drop down list calendar for date selection:
- Business rules:
  - $\circ\,$  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:
  - o If days is selected 30 days data will be displayed
  - If week is selected 52 weeks of data will be displayed
  - $\circ~$  If month is selected 24 months of data will be displayed
  - o 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



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**Scenario 2 -**Region filter = Western Personnel Area filter = All Personnel Sub Area filter = All Job Classification filter = Yards Org Unit filter = All Functional Classification filter = All Display Type filter = Graph





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**Scenario 3 -**Region filter = Eastern Personnel Area filter = All Personnel Sub Area filter = All Job Classification filter = Train Crew Org Unit filter = All Functional Classification filter = Drivers Display Type filter = Data



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

\_\_\_\_\_ ... address



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:	04 May 2009			
Revision Date:	03 June 2009			
Document Reference:	2			
Transnet Freight Rail Dashboard Functional Specification				
Primary Author(s):	Paballo Lecheko & Matodzi Mutavhatsindi			
Co-Author(s):	KPI / Depot Dashboard Automation Team			
2×				



# **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 purpose of this project is to automate dashboards that will provide an electronic and summarised view of operational expenditure 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 which 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 Expenditure Key Performance Indicators (KPI) will be displayed per area manager with the ability to drill down to cost centre level.

#### 1.2. Risks

The volume of data is too high which may results in the system response being slow.



## BUSINESS SPECIFICATIONS FOR THE EXPENDITURE KPI DEPOT DASHBOARD AUTOMATION

### 1. Business Context

- Measurement of cost centres expenditure against budget
- Linked to the operational cost saving management processes

### 2. Project Context

- Name: Business Specifications KPI / Depot Dashboard Automation
- Purpose: Automate dashboards in use in areas/depots this is to provide management a view of the cost centres overall expenditure against operational budget

### 3. KPI Definitions

## 3.1 Overall expenditure against budget

• These KPIs measures overall expenditure incurred in the running of business against the operational budget.

# 3.2 Overall overtime expenditure against budget

- Overtime is the amount of time an employee works beyond normal working hours. Overtime includes: Overtime payments, Sunday time and Paid Public holiday. These payments are captured separately on the SAP FI.
- This KPI measures the cost of overall overtime expenditure against budget and also the actual total number of hours worked.

## 3.3 Diesel consumption against budget (rand)

• The overall expenditure of diesel/fuel utilisation and the number of litres consumed.

#### 4. Measure Context

• Feed to / feed from:

Data is captured and extracted from SAP FI/CO and stored into Business Information Warehouse

- Expenditure is 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



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- ROE Monthly Meetings
- APM Monthly Meetings
- \_ Area Monthly Meetings

#### 5. Data Description

Source systems •

> Captured into SAP FI/CO and extracted into SAP B.I.W for reporting purposes and dashboard publication

Data flow model:



Components of the calculation required: N/A •

#### 6. Business Rules

Business rules are available on:

- **Transnet Control Framework Document**
- Transnet's Detailed Capital Procurement Procedures Document •



#### 7. Solution Requirements

- Minimum requirements:
  - Dimensions / parameters: Operational structure; starting on APM cost centre group level to cost centre
  - Graphics: Printable graphs rolling 24 months
  - Ability to navigate between levels i.e. cost centre/area
  - Linked to other measures in the "Depot Dashboard"
- Additional requirements to optimise this solution:
  - Electricity consumption and book-off accommodation to be looked at in a later phase
  - Performance against budget and historical trends to be reflected
- Requirements to enable utilisation in the other dashboards that contains the measure / related measures:
  - Addition of targets
  - Link to cost component available from SAP FI/CO at an APM level and cost centre structure

## 8. Solution Proposal

Solution detail:

On the dashboard a link will be published "Expenditure KPA". In order to access the KPA 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. 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 the Expenditure KPIs from different cost centre structures 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 follow:



## 9. Parameters screen fields explained:

\*\***Cost Centre Group (Region)** – (Default to All) On this parameter the user will select from the drop down list one of the following choices All (Cost Centre Group: G012428), Western (Cost Centre Group: G014527), Eastern (Cost Centre Group: G014528); and Central (Cost Centre Group: G014526) to display a graph for the region.

<u>Note:</u> Each cost centre group specified has its subordinates with individual cost centres. This is highlighted below in **Annexure 1** 

\*\*Cost Centre Group (Cluster) – On this parameter the user will select from the drop down list the Cost Centre Group for the Area production Manager applicable. If the region cost centre group is selected then the Cluster's Cost Centre Group for that region will be available on the drop down list.

\*\*Cost Centre Group (Area Manager) – On this parameter the user will select from the drop down list the Cost Centre Group for the Area Manager applicable. If the region cost centre group is selected then the Cluster's Cost Centre Group for that region will be available on the drop down list but if the region cost centre group and



cluster cost centre group is selected then a drop down list will be based on the cluster's Cost Centre structure.

\*\***Cost Element Group** – On this parameter the user will select from a drop down list and select the applicable cost element group required.

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

#### **Display resolution options explained:**

*Month* – this is a calendar view of months from January to December April being the first month of the financial year

**Quarter -** Is calendar view of months divided or grouped into four parts i.e Quarter 1 = April – June

Quarter 2 = July – September

Quarter 3 = October – December

Quarter 4 = January - March

**Year** - a calendar view of years – where in financial reporting, previous years budget and expenses are compared to current financial year's budget and expenses

\*\***Period "Date 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 the 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 "Date To"** – (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 the user chose a month view, then the graph displayed will show a range of information captured till the date stated on the period **to**.

After completing the above fields the user will execute the report to generate a win/loss graph for the selected expenditure KPI of a specific cost centre structure **i.e.** overall expenditure against operational budget for a specific cost centre group structure. The win/loss graph will have a "Y" axis showing over budget and under budget figures an "X" axis displaying a rolling 24 months view/four rolling quarters/previous year vs. current year. Graph to be displayed as a trend graph for Overall Expenditure **See bar graph examples below**:



### Overall expenditure for All Regions Cost centre Group: All G01





The graph will provide a summarised view of all the overall monthly expenditure for all regions against operational budget allocated to the specific cost centre group structure.

When the user selects the Cost centre Group, then a bar graph displaying information on the overall expenditure against operational budget will be published on the dashboard. To drill down to individual cost centre the user must select the cost centre number, the cost element group and state the "period from" from the drop down list to display the 24 month rolling view graph

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### Overtime Expenditure for Clusters Cost centre Group: Gauteng Cluster





The graph above provides a summarised view of the overall monthly overtime expenditure against the actual operational budget allocated to the specified cost centre group. To display individual cost centre the user must enter the correct cost centre number, the cost element group and state the "period from to" from the drop down list to display the graph





The graph will provide a summarised view of the overall monthly diesel consumption and utilisation against the operational budget. To drill down to individual cost centre the user must select the cost centre number, the cost element group and state the "period from" 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 from field.





Appendix 1 shows the structure of each cost centres group structure and its subordinates with individual cost centres linked to it as constructed in the SAP FI/CO module.

Note: All above displays are illustrative. Final displays will be dependent on system functionality and dashboard standardisation.

# Appendix 1

- Cost centres are structured into a defined hierarchy, based on organisational structures. When a cost centre is created in the system it must be assigned to a **node** in the standard hierarchy. The alternative hierarchy is created for reporting purposes.
- The standard hierarchy is built by grouping together cost centres into groups and nodes. The groups are denoted by 'G' followed by the cost centre number, e.g. for the top cost centre number 012104 the group will be G012104. The lower level of the group should be a node denoted by a letter 'N" followed by the cost centre number. The cost centre 012104 will then be assigned to the node N012104.














































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716332 REPORT NTCM SPRINGS RYONIT 🕒 G716287 M/A NTCM SPRINGS 🗀 N716287 M/A NTCM SPRINGS 716104 TRAIN DRIVERS SPRINGS LOCO PREP SPRINGS 716105 716260 M/A TT SPRINGS TRAIN ASST SPRINGS 716262 M/A NTCM SPRINGS 716287 SERVICE DRIVERS SPRING 716289 Ē G716269 M/A NTCM VOORULTSIG 🗀 N716269 M/A NTCM VOORUITSIG LOCO PREP YOORUITSIG 716107 M/A NTCM VOORUITSIG 716269 TRAIN ASST VOORUITSIG 716271 🕒 G716327 NTCM ISO/NAS N716327 TRAIN CREW ISO/NAS

#### TRANSNEL





### TRANSNEL





# **Cost Centre structure for Northcore**

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				   	N812311 G812091	OPS JUN	MAN POLOKWA MAN YARDS P	NE OLOKWANE	
					N81209   G81219	1 5	JUN MAN YAR POLOKWANE Y	DS POLOKWANE ARDS MANAGER	
					N8	12195	POLOKWA	NE YARDS MANAG	ER
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G816015 MAN O/E POLOKWANE 2 ONLY MAN O/E POLOKWANE N816015 PLANNING POLOKWANE G816016 \_ \_ N816016 PLANNING POLOKWANE \_ \_ G812307 OPS MAN PRETORIA \_ \_ N812307 OPS MAN PRETORIA \_ \_ JUN MAN YARDS PRETORIA G812056 \_ \_ JUN MAN YARDS PRETOR N812056 \_ \_ M/A SY CAPITAL PARK G812124 \_ \_ N812124 M/A SY CARITAL PARK G812129 M/A SY WAILOO \_ \_ N812129 SY WATLOO \_ \_ G812153 SY PRETORIA WEST \_ \_





- 24 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) ٠
  - To be decided
  - Define/measure spending trends
  - 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,
  - idger 5. Cost - Enable swift Management action on exceeding budget per cost Centre structure/areas



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Signatories	Role ICTM – Programme	Signature	Date	Accountability (I hereby declare th locument and it)
	ICTM – Programme Management			is within the scop
Gerhard Bierman	Process Owner	A.	17/164	correctly define references the correctly descr
Steven Schubach	Process Owner	1- Children	pol82	<ul> <li>correctly de</li> <li>references</li> <li>correctly de</li> <li>identified th</li> </ul>
Udesh Naicker	Process Owner	A C RESEC	1×2/8/22	correctly de references correctly de
	Functional MIS representative (where available)			. designed th
heres way NI Excerc	Performance Enablement	A A	11/8/09	. the KPI def definitions . designed th
Mark Snyders	ICTM – Portfolio Management			<ul> <li>complies v</li> <li>relevant c</li> </ul>
Kesegan Nair	ICTM – Technical / Information Architecture	r r	/ /	. provides s specificati
Dirk Nieuwoudt	Sponsor	N IN	11/08/09	



Transnet Freight Rail Dashboard Functional Specification

KPA Name(s)	Customer Care_ Customer Cancellations
Project Name	Dashboard
Project Sponsor:	Dirk Nieuwoudt
Version:	1.3
Document Title:	Customer Cancellations Dashboard Specification_v1.0
Creation Date:	03 March 2009
Revision Date:	19 June 2009
Document Reference:	
Primary Author(s):	Lebotse Menoe
Co-Author(s):	
QK-	



## BUSINESS SPECIFICATIONS FOR CUSTOMER LOST VOLUME REPORT – KPI / DEPOT DASHBOARD AUTOMATION

### 1. Business Context

- Measurement of planning effectiveness
- Linked to Deliver Product and Serves Operational processes (from value chain bubble 8)

Value-added chain diagram



- 2. Project Context
  - Name: Business Specifications KPI / Depot Dashboard Automation
  - Purpose: Automate dashboards in use in yards/depots/area/region this is to provide management a view of volumes lost due to Customer/TFR cancellations



## 3. KPI Definition

## 3.1 Customer/TFR Lost Volume

- Customer lost traffic is the negative deviation from confirmed weekly demand due to the customer. These cancellations should be as result unforeseen events e.g. plant breakdown. Planned maintenance or shutdown should be known of the confirmation of demand.
- This is measured in terms of actual wagon departures against planned wagons departures with a weekly cut-off on Sunday nights (e.g. even replanned demand for the following week, traffic is regarded as lost if it did not run in the week it was planned
- This KPI measure the actual volume lost due to customer non performance

## 4. Measure Context

• Feed to / feed from:

This measurement forms a subset of total traffic lost. It is calculated from planned and executed tonnages. It is used as an input to calculate revenue lost. Is however aggregated on various levels per type e.g. volume lost per business sector.

- Customer cancellations lost volume report is currently reported in the following dashboards:
  - SAM EXCO
  - Customer Care EXCO
  - TFR OPCO
  - Monday @ 3pm meeting (TFR EXCO sub-committee)
- The lost volume report is only available on eNWB and deviations are captured on daily basis



## 5. Data Description

- Source systems
  - Captured into Next Week Business (NWB) and stored on Oracle DB for reporting purposes
- Data flow model



• Components of the calculation required: N/A



5.1 NWB Business Rules

- The Key Account Manager / Customer Co-ordinator must estimate the customer's planned production levels for the forecast period before contacting the customer.
- The Key Account Manager / Customer Co-ordinator uses the History, Contracts, Permits and Area Knowledge to predict the customers forecast.
- The Key Account Manager / Customer Co-ordinator should try to obtain a forecast for at least the following week's customer requirements from Area personnel and customer planning personnel; (Monday to Sunday)
- The Next Weeks' Business process is a proactive process i.e. the Area personnel (Key Account Manager / Customer Co-ordinator) contacts the customer regarding the customer's possible planned production levels;
- The Key Account Manager / Customer Co-ordinator must continually update the Next Week's Business system to reflect the latest customer requirements;
- If there is a difference between the forecast and actual customer requirements, this must be documented on the NWB system;
- When identifying a possible wagon type to be used, the following should be considered:
  - Which types of commodities can be carried by which wagons;
- That the customers' preferred wagon types may be dependent on their siding constraints i.e. which wagons can be loaded and off-loaded at the customers siding;(Receiving /Forwarding)
- That the wagon types to be used may be stated in contracts; and
- That the customer may state their wagon type preference.
- The "Empty Wagon Requirement Demand" must be communicated to the relevant people i.e. the Key Account Manager / Customer Co-ordinator to inform all those concerned in terms of what we expect our customers to produce;
- The "Empty Wagon Requirement Demand" must be "approved" by the Key Account Managers (or responsible person) two days prior to the forecast T1. This signoff will automatically come into effect within two days of T1, and no further updates will be possible to the forecast;
- The Customer Care will be responsible for Macro Empty Wagon Distribution and Allocation to all Areas, and for reserving movements of empty wagons between Holding Areas (major yards);
- The allocation of wagons which are in short supply to customers will be the responsibility of the Micro Wagon Distributors (i.e. regional personnel who help Customer Care perform the wagon allocation function i.e. Yard Planner) and the Key Account Managers.
- The Key Account Manager / Customer Co-ordinator will use the Wagon Allocation Report as a basis for confirming consignments;
- The Key Account Manager / Customer Co-ordinator must confirm each NWB demand before capturing the consignment on Service Management.(Complete Customers Mass Field)
- To trigger confirmation, wagon allocation (bulk movement reservations and T4 availability) must be confirmed by the Customer Co-ordinator;
- The wagon allocation must cover a sufficient forecast period of at least 10 days ;



- Wagon allocation requirements must be communicated to the Yard Planner to ensure that requirements are within area capacity constraints;
- If a shortage of wagons is experienced, the customer must be contacted to make alternative arrangements; and
- The actual information must be used to update the NWB database
- To obtain the wagons en-routes and to be loaded for the Receiving and Forwarding locations NWB system reports options allows you to view or print the T1, T2, And T 3 information to plan the future demand.
- The Central Customer Care team will maintain the Wagon Ring-fence Table.
- All data older than 90 days will be archived.

### 6. Solution Requirements

- Minimum requirements:
  - Dimensions / parameters: 1. Operational structure; 2. Customer Care
     Decentralized structure
  - The graphs will be aggregated to area, cluster, regional and TFR level;
  - TFR yards, customer sidings should be easily extracted from a location perspective
  - Expressed in graphical format (bar graph) on a daily basis
  - Ability to navigate between levels
  - Linked to other measures in the "Depot Dashboard"
- Additional requirements to optimise this solution:
  - Dimensions / parameters: More detail re. Reporting periods: Daily, aggregated to weekly (Monday to Sunday as per NWB planning window) and monthly (26<sup>th</sup> of one calendar month to 25<sup>th</sup> of next calendar month)
    - Develop graphs for each department that contributed to the loss of volume
    - Link to lost income due to lost volume



# 7. Solution Proposal

• Solution detail:

On the dashboard a link will be published "Lost Volume". In order to access 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 and then select the applicable KPI with the following parameters to be completed: (see below)

Click on the preferred KPI then the selection parameters for that KPI will be displayed which the user must complete to generate the bar graph. The bar graph must display a 30 days rolling view





The selection parameters for the lost volume will be as follows:

**Region**: \_\_\_\_\_ (Drop down with the following: All, Central, Eastern, and Western) **Cluster**: \_\_\_\_\_ (Drop down related to region selected, if no region selected all areas)

Location: \_\_\_\_ (Drop down related to region and/or area selected)

Sector: \_\_\_\_\_(Drop down list containing all TFR defined commercial sectors)

**Customer:** \_\_\_\_ (drop down list of customers linked to a particular commercial sector) **Deviation reasons:** \_\_\_\_\_Drop down list of deviations reasons that were captured against a particular sector or customer)

Period: \_\_\_\_\_ (User can select from calendar date From \_\_\_\_)

Display Resolution: \_\_\_\_\_ (the graph can be displayed in days or week or month) Note:

- If the user selects Period From -To then select Display Resolution days or week or month then the graph will be displayed based the chosen selection parameter
- If the user does not select Period From To but selects only Display Resolution Days: then the graph will display the last 31 days of the month
- If the user does not select Period From To but selects only Display Resolution Week: then the graph will display the last 52 weeks of the year
- If the user does not select Period From To but selects only Display Resolution Month: then the graph will display the last 24 months of the year

After completing the above screen the user will execute the report to generate a bar graph for the amount of volume lost to be displayed on the dashboard. The bar graph will have a "Y" axis showing the amount of volume and an "X" axis showing the time period in days or week or month.

\*\***Region** (a drop down list of: All; Western; Eastern; or Central) – on this parameter the user has the option to choose from the <u>Region</u> drop down list. If the user selects <u>Region</u> "All", then selects <u>Cluster</u> "All", then selects <u>Area</u> "All" then selects <u>Location</u> "All", then selects <u>Sector</u> "All" then select <u>Customer</u> "All", then select <u>Deviation</u> <u>Reasons</u> "All" and then finally selects <u>Period</u>, then select <u>Display Resolution</u> then the dashboard will display the total sum of volume lost for all the regions.



To obtain the KPIs, a link "**Customer Lost Volume**" will be published on the portal. When the user clicks on this link, a list of reports under which the different summarised list of KPI's reports, will be displayed. i.e. Traffic Lost and Deviation Reasons.





> When clicking on Deviations Reasons Report:



The graph below will be displayed and users can use various selections in order to view the graph they require:

The users can select a specific ROE from drop down list, and then select Cluster, Area, Location, Sector, Customer, Period, Display Resolution (month or week or date). **Note:** Users can view daily, weekly and monthly report of lost volume. The graph below will be displayed:





### \*\*Customer at location level The users

can select a specific ROE from drop down list, and then select Cluster, Area, Location, Sector, Customer, Deviation Reasons, Period, Display Resolution (month or week or date). **Note:** Users can view daily, weekly and monthly report of lost volume.

The graph below will be displayed:



- Proposed approach (best way to solve current needs/issues)
- Consider adding other TFR departments that may also contribute to lost volumes e.g. Infrastructure, ROC, Customer Care, Sales & Marketing, Asset Protection and Rail Engineering.
- Consider adding reasons/likely causes per department that lead to volumes lost
- Consider adding time periods when the incidents are occurring
- Establish the facts on what happened
- Define/measure incidents trends
- Develop controls aimed at prevention
- Enable proactive deviation management steps to help limit such incident from occurring on all departments that have direct impact on customer service e.g. ROE, Infrastructure, ROC, Customer Care, Sales & Marketing, Asset Protection and Rail Engineering.



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## 8 Solution Proposal

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Glossary							
Field	Explanation						
FINMONTH	Transnet Freight Rail Financial Month starts from 26 <sup>th</sup> of the current to the 25 <sup>th</sup> of the following month						
FINWEEK	Transnet Freight Rail Financial Week starts from Monday 12am to Sunday mid-night						
eNWB	This mean Electronic Next Week Business						
CSM	Customer Service Manager						
OE	Order Entry Personnel						



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	Dirk Nieuwoudt	Kesegan Nair	Mark Snyders			Sawela Shabergu		Signatories
	Sponsor	ICTM – Technical / Information Architecture	ICTM – Portfolio Management	Performance Enablement	Functional MIS representative (where available)	Process Owner	ICTM – Programme Management	Role
	while						ð	Signature
	29/06/09			1	O	zyloche		Date
PRIE	addresses the business need as defined	provides sufficient information to develop the technical specifications from	complies with the standard and contains all the required and relevant content	the KPI definition is correct / have been added to the list of definitions designed the display such that it will fit with other dashboards	co-sign with process owner and designed the display such that it will fit with other dashboards	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	is within the scope of the project / programme as defined	Accountability (I hereby declare that I have reviewed this document and it)