TK Blue - Monthly extraction from TIERS - Functional Documentation

1.0 Overview

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Business Context and Application Overview

Solvay GBUs need to receive an excel file with an automated extraction of shipment details in order to calculate their CO2 emissions.

This file will be input in an external tool that will make the calculation in TK Blue.

Application User Profile

The extraction is restricted to a limited group of advanced users

The goal is to download the extraction and load it manually in TK Blue

Target Users:

Supply Chain and Sustainability Key users

See actual users here

VERSION	DATE	MODIFIED BY	DESCRIPTION
0.01	05.12.2024	Donia Rachdi	Initial draft
0.02	05.02.2025	Donia Rachdi	Additional requirements following TK Blue implementation by the supplier

Application Type

Data Product Type	☐ Dashboard ☐ Report ☐ Advanced analytics ☐ AI ☑ Others <Montly Extraction>
Technologies	☑ BW ☐ Tableau ☐ Qliksense ☑ Talend ☐ Dataiku ☐ Others <specify which one>
Data Sources *Note: list of all applications and various environment*	☐ SAP PF1 (Production environment) ☐ SAP WP1 ☐ SAP PI1 ☑ BW (versions) ☐ iCare CRM ☐ CORE CRM ☐ Others <specify the name of the source>

2.0 Business Process

Solvay GBUs need to receive an excel file with an automated extraction of shipment details in order to calculate their CO2 emissions.

The extraction is scheduled to happen on the 3rd of the month, with data of the previous month M-1

This file will be the input for an external tool, TK Blue, that will make the calculation in TK Blue.

2.1 Challenge/Opportunities

Using Talend also allows us to sort the fields in an order that makes it easier to figure out the shipment flows (due to the arborescence in BW, the attributes appear after the main dimension.

Talend also cleanses special characters to ease the legibility by TK Blue by removing (hash signs #), solo dots, solo commas => dots and commas in the middle of a value are ok

Talend is used to separate the unit of the measures from the value to help the legibility of the units

3.0 Application Feature Overview

Source query: [DI_BW_QRY_MVSDTR01_0010] BW - Shipment costs detailed analysis TIERS (Core Query)

Attention point: there is a QV version but that is not fully aligned with the core version. The DI version has been created for this purpose based on the core query

Scope: Solvay GBUs

Monthly extraction based on: actual completion month

All the dimensions and measures listed below, with the same order and labels

Fields that have the properties Key and Text have the second column empty => we need them to be renamed with the suffix (Key) and (Text) for the usage of the external tool. **See the list of dimensions here**

Measure are: Gross Dels, Net Weight, and No of Deliveries

Extraction of previous month M-1 scheduled for the 3rd day of the Month M

4.0 Business Objects

This section should contain a table with the business objects used in the reports with links to the business object definition in LeanIX. The purpose is to ensure that all DA&AI Products adhere to a centrally maintained list of business objects and definitions to allow us to achieve our digital ambitions. For any questions about business objects and LeanIX, contact Data Governance or the Enterprise Information Architect.

Data Domain	Business Object (in LeanIX)	Business Object Definition (only use when the object is not yet in LeanIX)
ex: Marketing & Sales	*ex: Customer*	

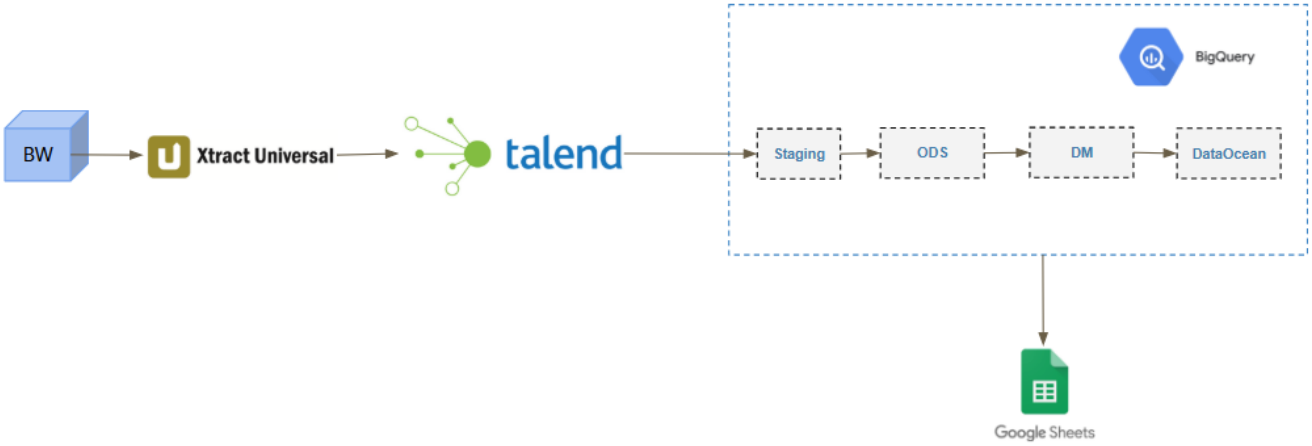
5.0 Functional Specification

see 3.0

6.0 System view (Architecture)

The purpose of this part is to describe the physical components that supports the functionalities of the product. From that point of view, this part should capture and visualizes the physical components of the data products such as backend, front end, data providers, libraries for ML models, etc.

Architecture design & Technologies



7.0 Non-functional Descriptions

Please populate the relevant section and delete those that are not applicable.

7.1 Usability

NA, the extraction is an excel file

7.2 Regulatory Compliance

NA

7.3 Security

Only members of this Google Group are allowed to access the extraction in GCP ECo-$Carbon emissions extraction access group

It is composed of at least 1 key user by GBU

The rationale is that for the time being, the extraction is automated, but the monthly upload is manual. The business key leader is ready to do this manual processing every month but we anticipate the fact that she may be out of the office and need a back up

Long term, the goal is to automatize this part as well and plug directly the extraction and TK Blue

7.4 Performance

NA

7.5 Reliability

NA

7.6 Scalability

Scalability refers to the degree to which a solution can evolve to handle increased amounts of work. The increased amount of work could be in terms of the user base, transactions, data, network traffic, or other factors e.g., the system should be able to handle an additional load of a maximum of 5,000 Users every month for the next 6 months without any noticeable performance impacts.

7.7 Compatibility

Interoperability is the degree to which the solution is compatible with other components. It is a measure of how effectively the system interoperates with other software systems and how easily it integrates with external hardware devices.

Interoperability aspects to be discussed during elicitation are in reference to (but not limited to) software systems to be interfaced with along with data / messages to be exchanged and any standard data formats, hardware components to be integrated with, and any standard communication protocols to be followed e.g., Order Management system will push the order file into a secured file transfer protocol server from where it will be loaded into the system through a daily job. To guarantee between Google Cloud platform and SAP BW Queries e.g., BW_QRY_MVPMOR01_0002, Solvay has introduced a new tool called Xtract (Xtract).

7.8 Availability

Availability is the degree to which the solution is operable and accessible when required. It is a measure of time during which the system is fully operational e.g., available for use and sometimes included as a Service Level Agreement (SLA) considering its criticality to the business, e.g., the system shall be at least 99% available on weekdays between 09:00 to 18:30 Central European Time (CET).

7.9 Refresh of the Data

The extraction is scheduled to happen on the 3rd of the month, with data of the previous month M-1

A new file is created each month and added to the folder