Optimized Application V5.1 User Guide

September 2024

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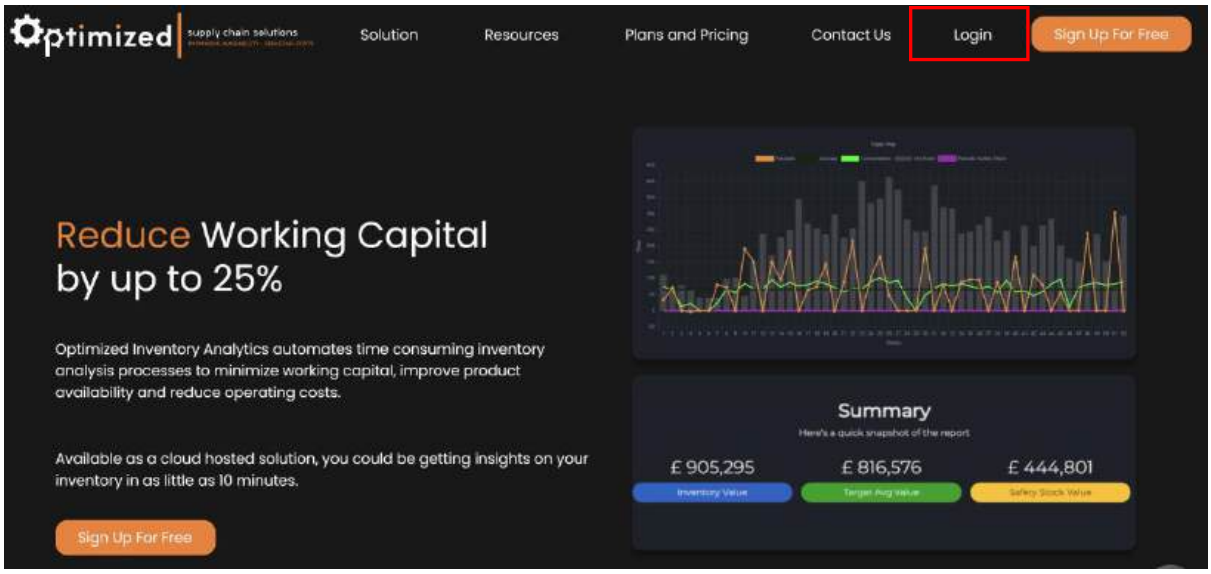
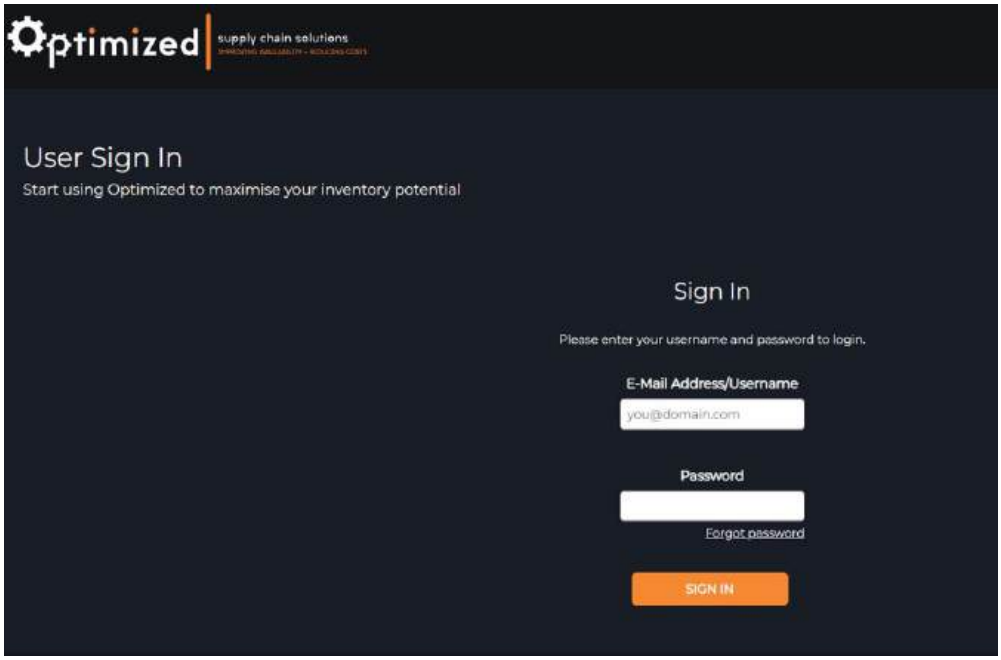
1.0 Login

1.1 Sign-in

- On the Optimized website main page, Click 'login' to enter your login details and access the Optimized Application.

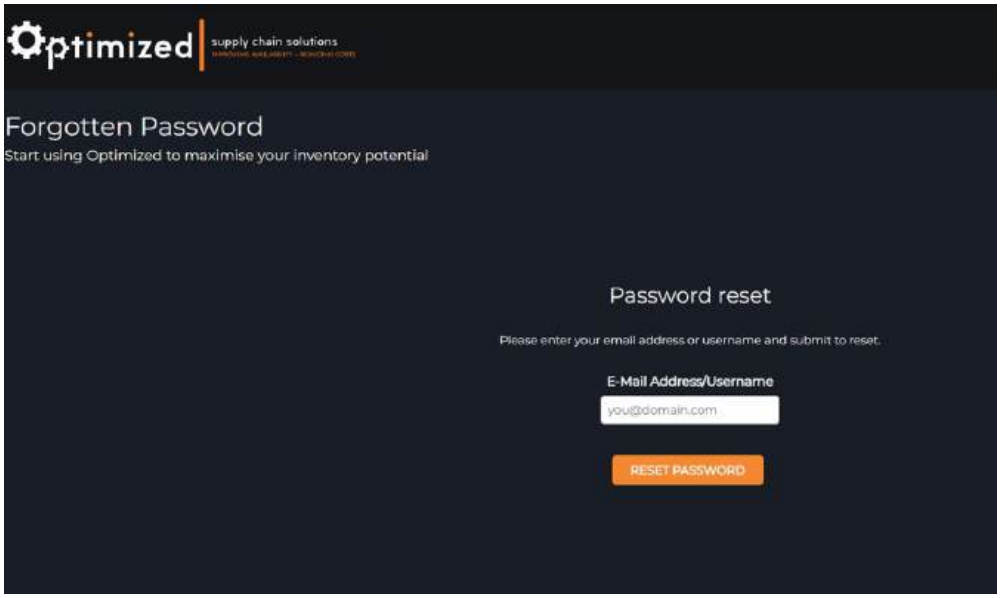


- You will then be directed to the login screen to enter your email and password.



1.2 Forgot Password

- If you forget your password, click on 'Forgot password' and you will see the screen below.
- Enter your email and click on 'RESET PASSWORD'



- You will then receive an email with a link to reset your password.

2.0 User Desktop

1. Import base data from the ERP or planning System.
2. Quick Win Reports: Identify current overstocks, Run ABC Analysis and Segment the Inventory, understand variability in demand and ability to manage inventory.
3. Carryout 'What If' Inventory Modelling to inform ERP Stock Settings
4. Change User preferences such as Currency or updating your password.
5. Run 'Triple Play' SKU Level 52-week performance to understand Demand v Supply Synchronisation
6. Save Scenarios and compare previous months recommendations and update ERP stock settings.

N.B Some features and functionality are dependent upon the account you have

3.0 Preferences

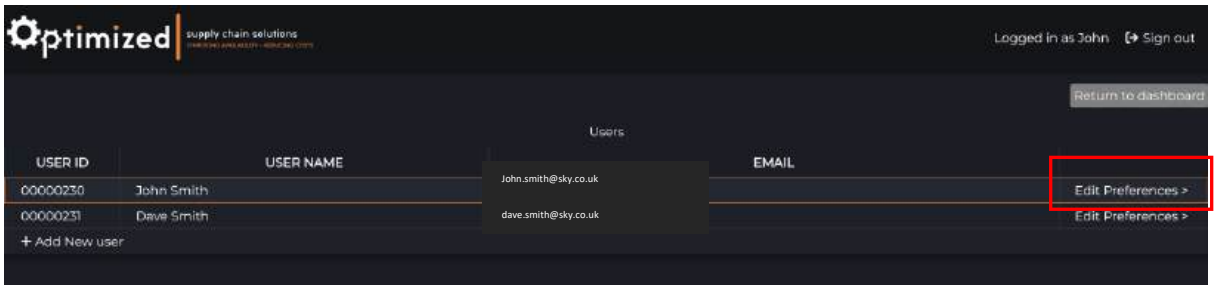
Within the preferences menu you have access to managing three different preference categories:

3.1 User Preferences

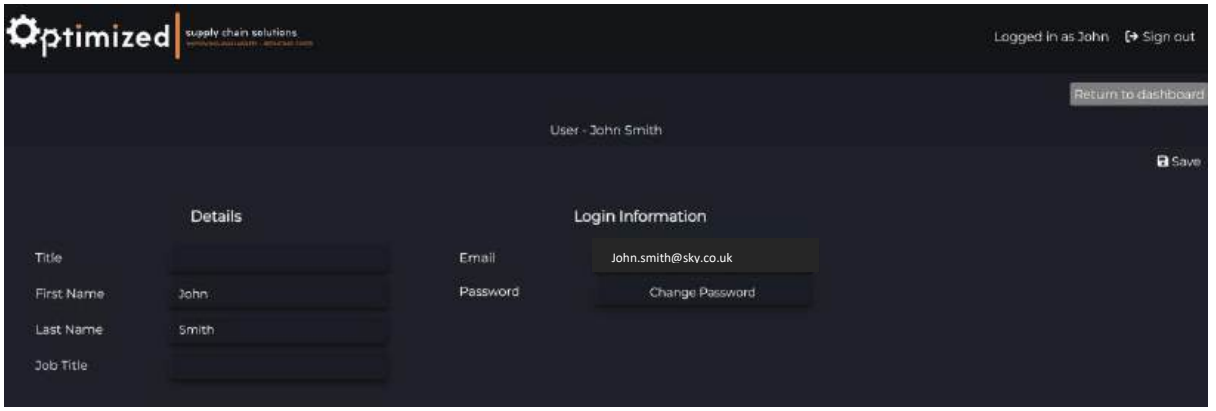
Within user preferences you can edit you're your own account details or change your password, and add additional users (if your account typre allows additional users).

3.1.1 Edit Account Details and Change Password

- If you have more than one company user, their details will also be displayed here
- To edit a user's account details, click on "Edit Preferences" against the appropriate user



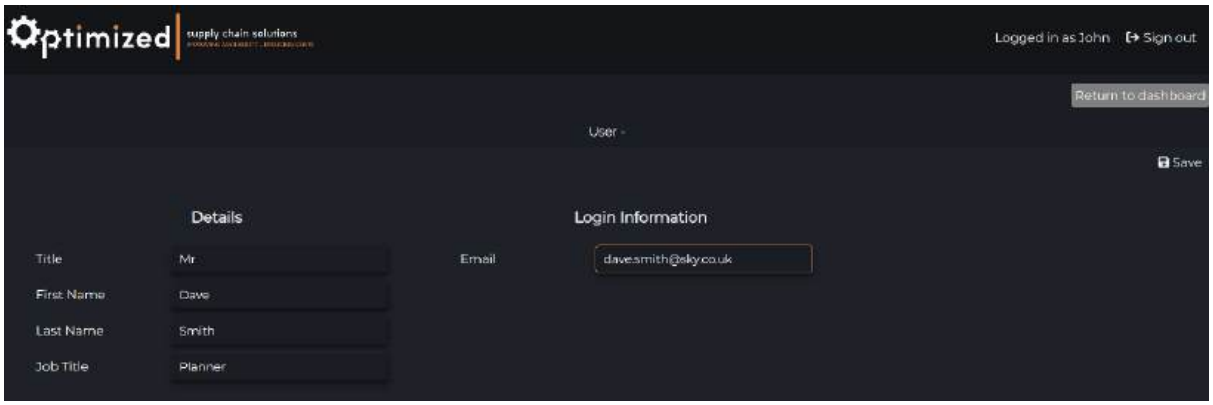
- You then have the option of editing your details or changing your password
- Click 'Save' once you have made any changes



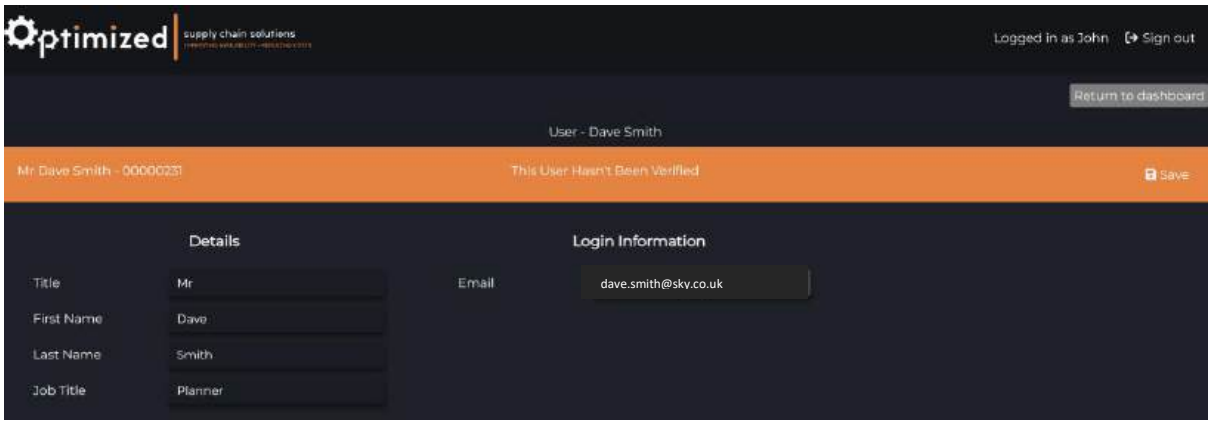
3.1.2 Add Additional User

- To add a new user, click on "+Add New User"

- You will then see the following form / screen where you add the details of the new user.
- Once the form has been completed, press the 'Save' button on the right.



- The following message will appear "This User Hasn't Been Verified"



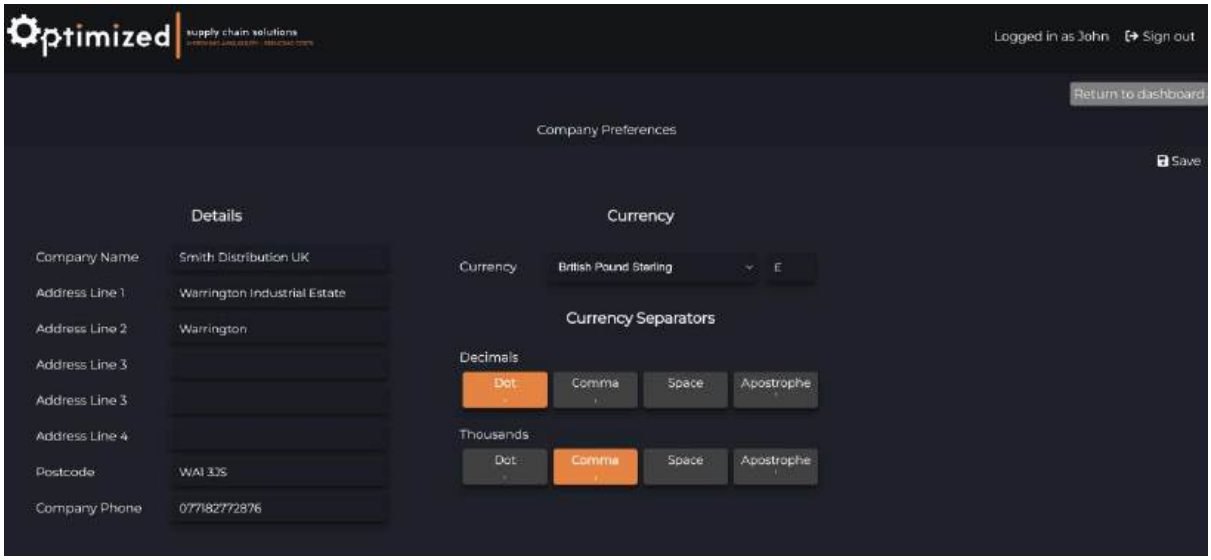
- This indicates that the new user has been sent an email to first validate their email address.
- Once the new user has validated their email, they will be send a separate email containing their login and password details.

- Once completed, the new user will have the same account access permissions.

3.2 Company Preferences

Within 'Company Preferences' you can edit your organisation's address, change the default currency to your own country's currency and also edit how the currency is displayed (see below)

- Once you have made any changes, press the 'Save' button on the right to save your changes.



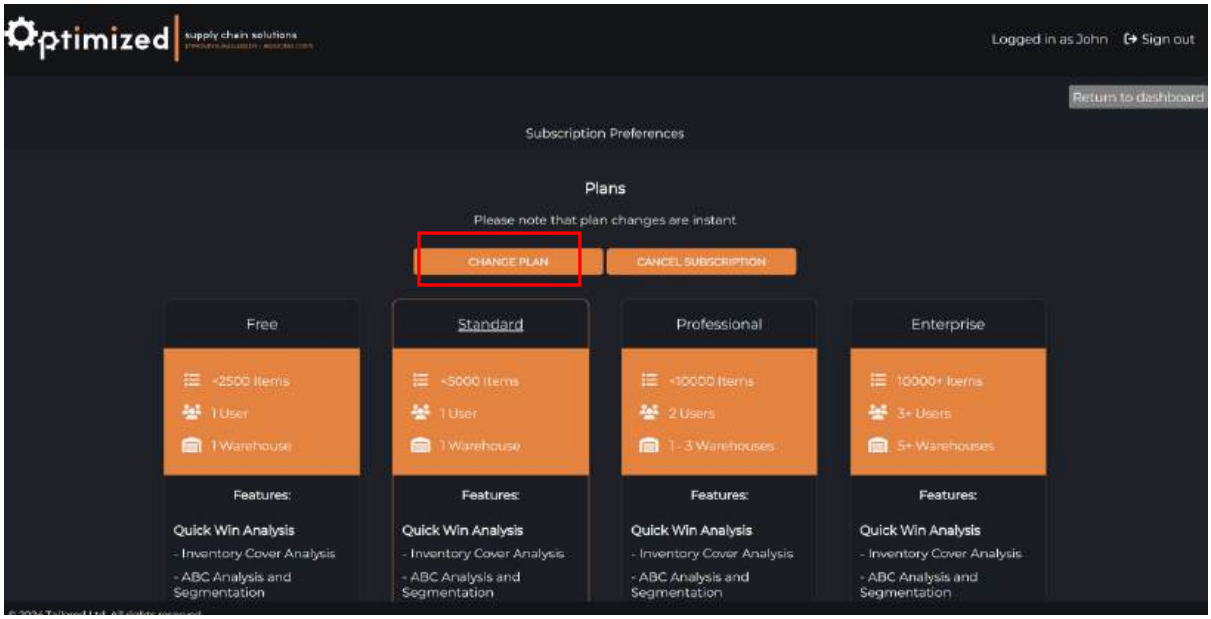
3.3 Subscription Preferences

Within 'Subscription Preferences' you have the option of changing your current subscription plan or cancelling your subscription if it is a paid account.

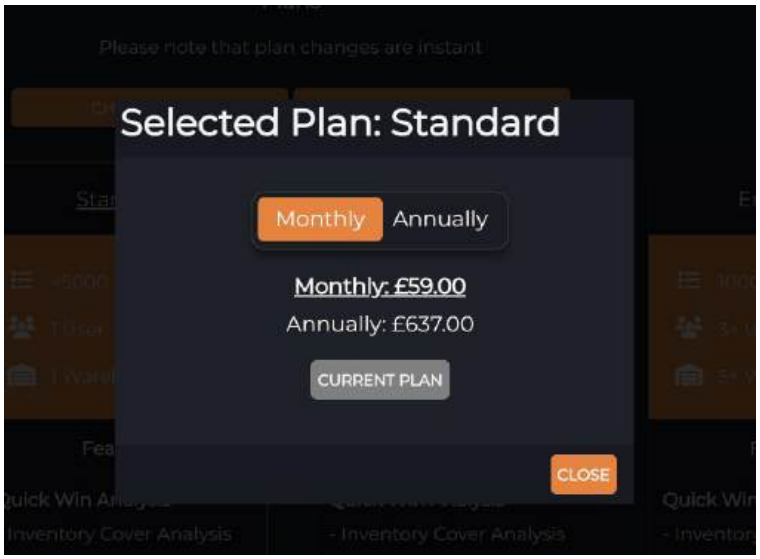
- Your current plan is highlighted (in the example below the user has the 'Standard' subscription.

3.3.1 Change Billing Cycle

- To change your current payment cycle from paying monthly to annual click on 'CHANGE PLAN'

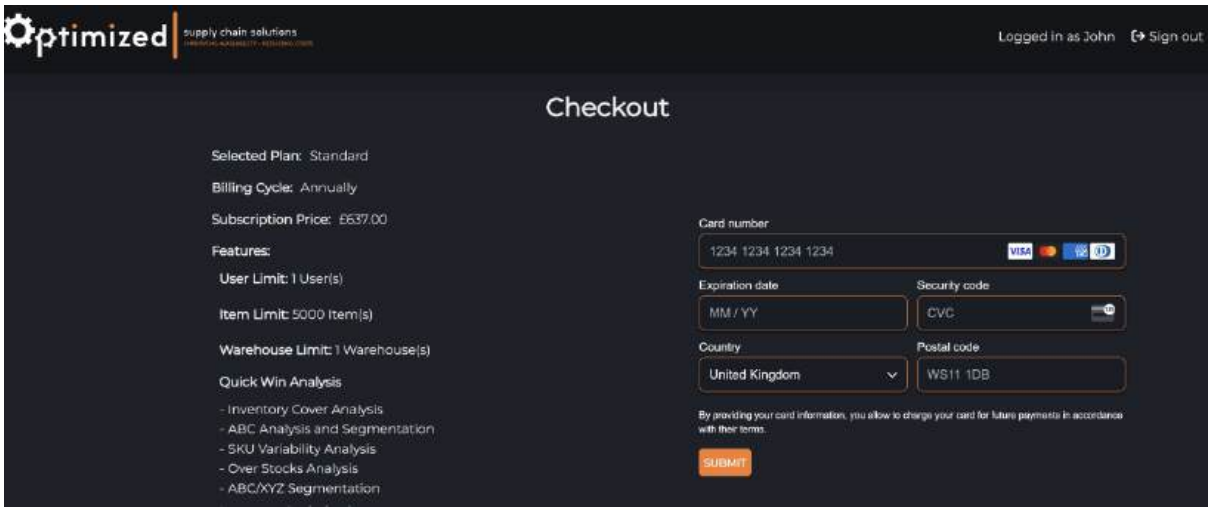


- You will then see the following dialogue box:



- Select 'Annually' and then select 'Change Plan'

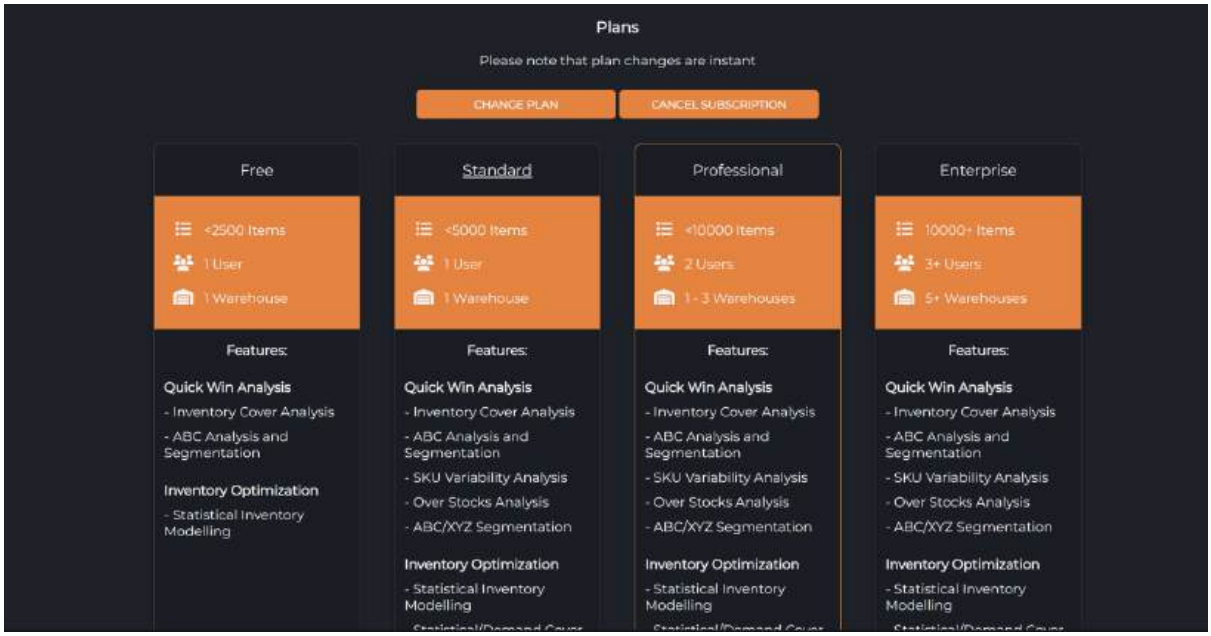
- If you switch from a monthly plan to an annual plan, you will then be taken to the secure payments page to enter you card details and make the additional payment:



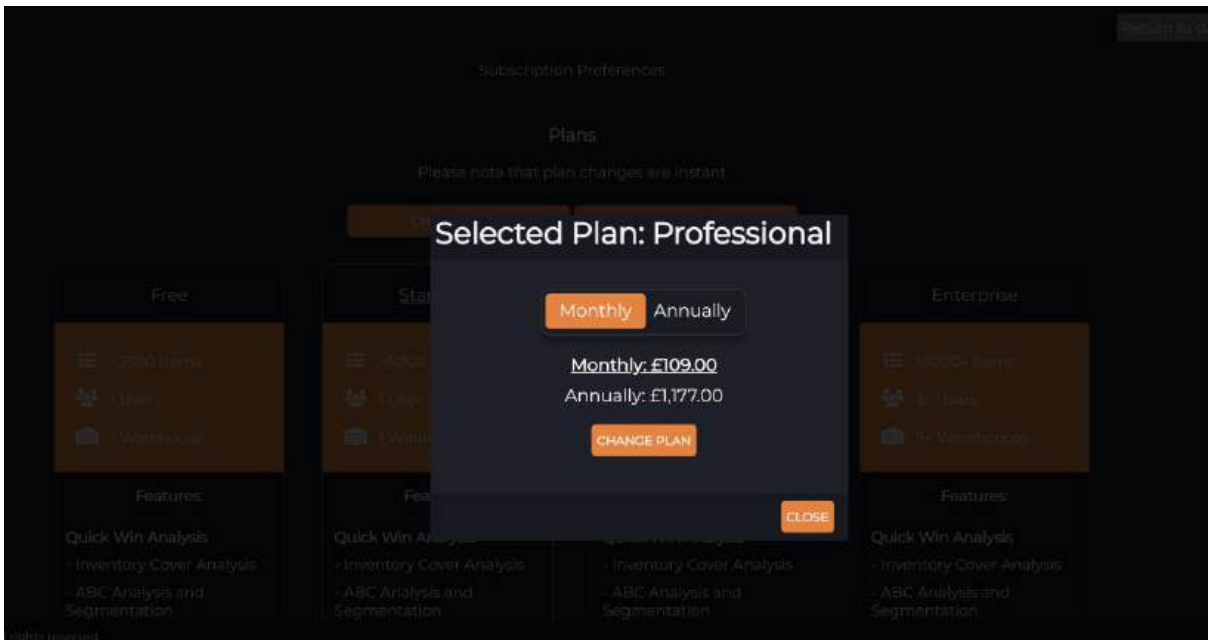
- Once the payment has been made you will return to the 'Subscription Preferences' page:

3.3.2 Change or Upgrade Your Subscription Plan

- To move your current plan to a paid subscription or to upgrade your plan, click on the plan that you wish to change to (example below 'Professional' Subscription



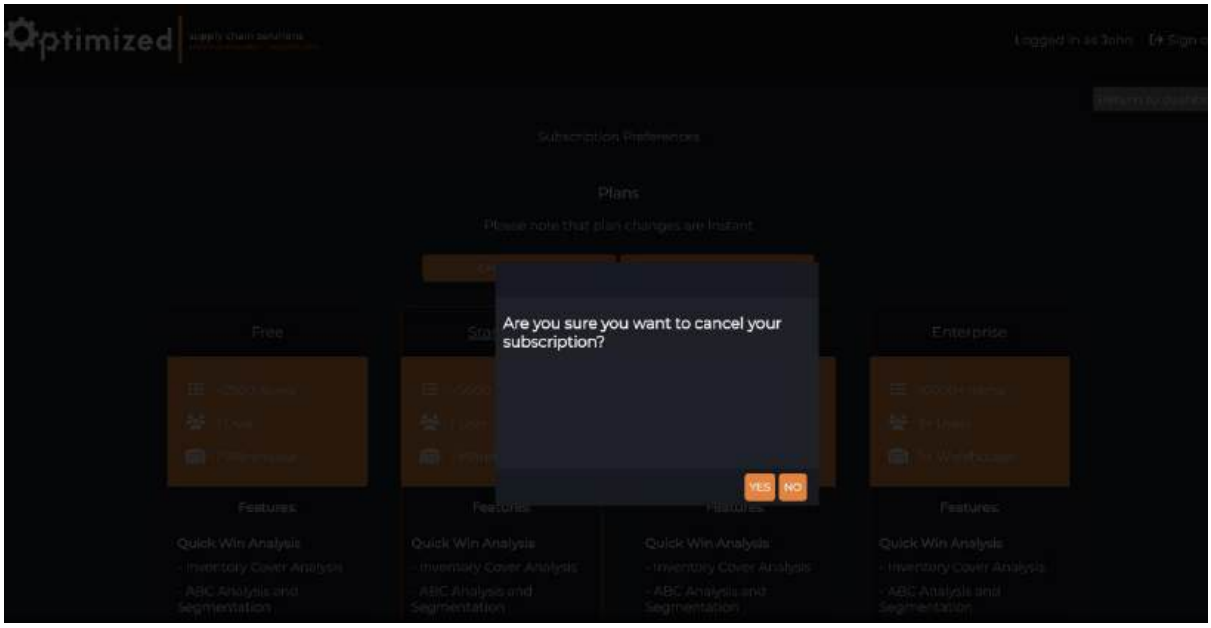
- A dialogue box will then appear giving you the option of paying for your new subscription either monthly or annually:
- Select your preferred payment cycle and click 'CHANGE PLAN'



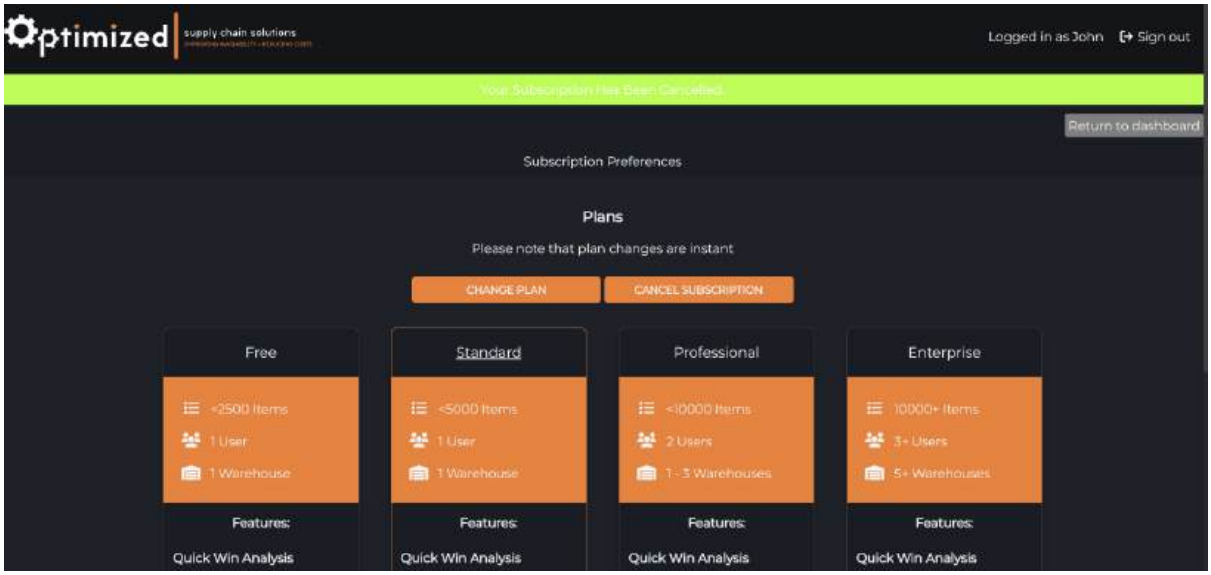
- You will then be redirected to the secure payments page to make the subscription payment.

3.3.3 Cancel Subscription

- To cancel a paid subscription plan, click on the 'CANCEL SUBSCRIPTION' button.
- The following dialog box will appear:



- Click the 'YES' option to continue to cancel your subscription.



- You will also receive an email confirming that your subscription has been cancelled.

4.0 Base Data Import File Creation

For the optimized application to run it requires base data from your existing ERP or Planning System. In total there are a maximum of 170 fields of data required to run the application but there are only 17 unique data fields. Of those 17 data fields, two are placeholders for future developments (fields 12 & 13, 'Container Size' & 'Supply Lead Time') and can be ignored.

4.1 Import File Structure

Field #	1	2	3	4	5	6	7	8	9	10
Field Description:	Location	Item No.	Description	Inventory On Hand (OH)	Cost Price	Inventory Unit	Supplier	Product Line	Product Group	Min Order Qty

= Mandatory

=Currently not used

=Non Mandatory

11	12	13	14	15-66	67-118	119-170
Replenishment Time	Container Size	Supply Lead Time	Forecasted Weekly Demand (Qty)	Consumption Wk1 to Wk52	Receipts Wk 1 to Wk 52	Forecast Wk1 to Wk52
	Field not used, Enter 0 (Zero) value	Field not used, Enter 0 (Zero) value		For last 52 weeks	For last 52 weeks	For Next 52 weeks

4.2 Replenishment Time (Field 11)

The Replenishment Time is the total lead time (physical distribution time plus physical goods receipt and including any warehouse inspection time).

The Replenishment time should be based on **actual** replenishment performance and not a theoretical or 'promised' lead time.

4.3 Stock Movement History

4.3.1 Consumption Data

Consumption is defined as a movement **Out** of the warehouse (either a transfer or sale). The application requires 52 weeks of movement history per item which is typically held within your organisations ERP, Planning or warehouse).

The data is organized into 52-week buckets so if there are multiple movements out within a week, these should be summed and counted as one value per week.

Consumption Wk1 = the stock movements out from 52 weeks ago, and Consumption Wk52 is the stock movements from last week.

The Inventory On Hand (Field 4), should be the On Hand quantity the day after the WK52 movement was captured.

4.3.2 Receipts Data

Receipts is defined as a movement **Into** the warehouse (either a transfer or purchase). The application requires 52 weeks of movement history per item which is typically held within your organisations ERP, Planning or warehouse).

The data is organized into 52-week buckets so if there are multiple movements into the warehouse within a week, these should be summed and counted as one value per week.

Receipt Wk1 = the stock movements into the warehouse from 52 weeks ago, and Receipt Wk52 is the stock movements into the warehouse from last week.

The Inventory On Hand (Field 4), should be the On Hand quantity the day after the WK52 movement was captured.

4.4 Forecast Data WK1 – WK52

The forecast data (Fields 119-170) are non-mandatory / purely for illustration purposes within the 'Triple Play' Analysis.

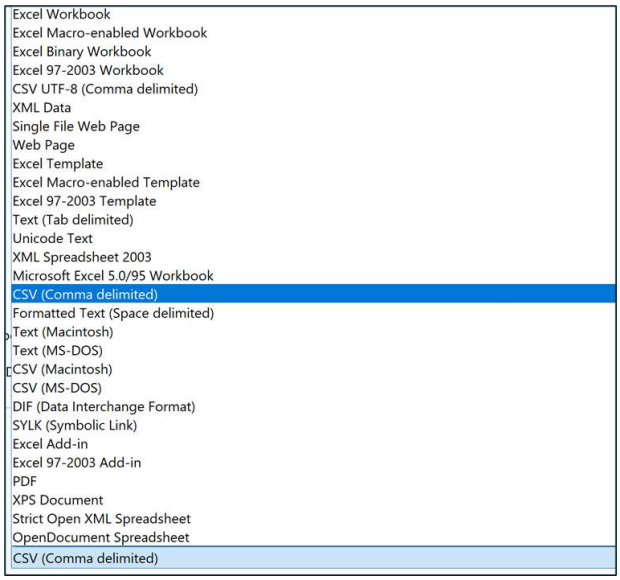
4.5 Building the Import File

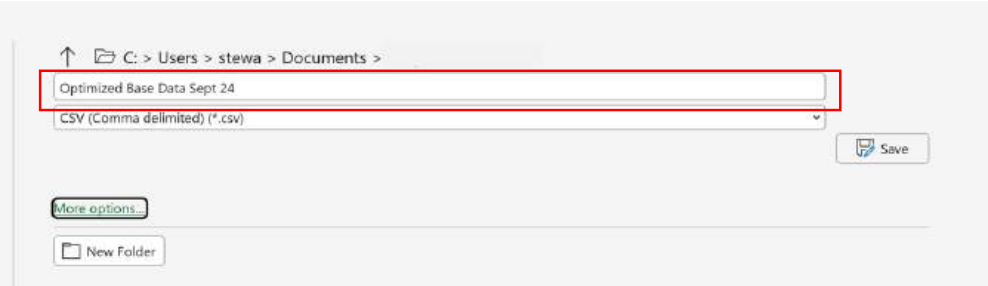
The File Import Template (available on the website under 'Resources'). Is a blank MS Excel template containing the field headings ready for you to transpose your organisations data.

Within the Resources section of the Website, you will also find a Demo Import File which shows how the data should be presented.

For two placeholder fields for future developments (fields 12 & 13, 'Container Size' & 'Supply Lead Time') insert a '0' / Zero value against each item.

Once all the field data has been populated within the template the MS Excel file should be saved as a .CSV file format.





5.0 Base Data File Import

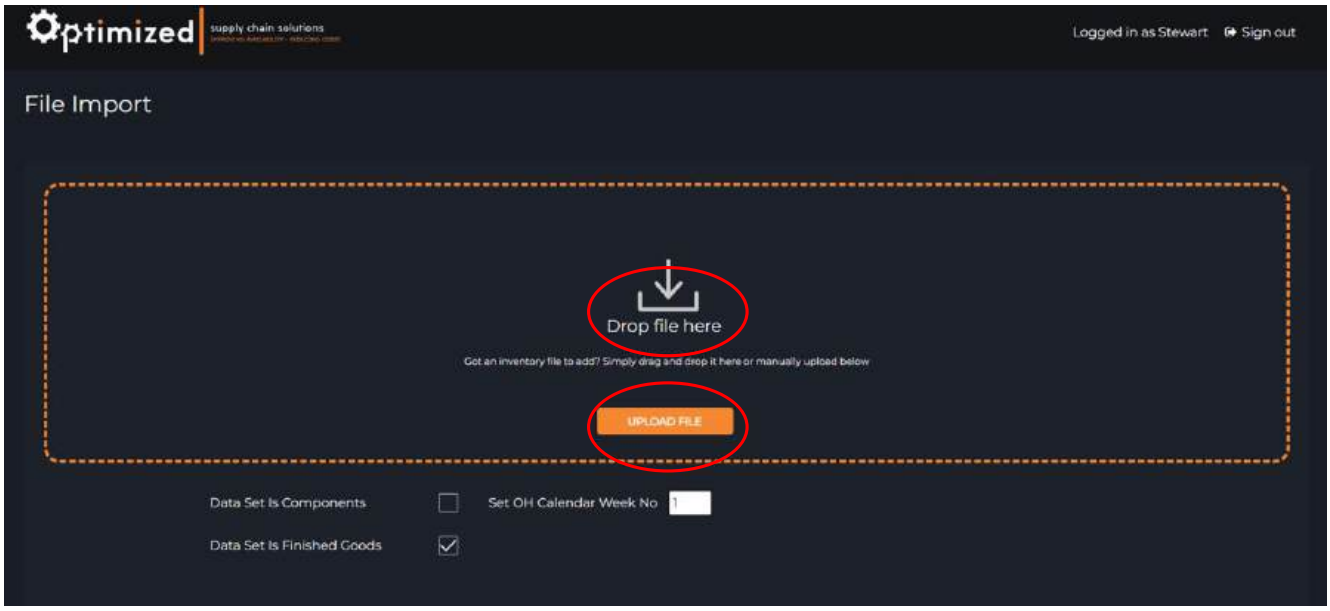
The file Import area is where the user imports the CSV format file containing the base data from the ERP or planning system needed by the Optimized application.

Use the 'File Import Template' (MS Excel File) to creates) which can then be either selected by clicking on the 'UPLOAD FILE' and selecting the file from a source on your PC, or 'dragged and dropped' into the 'Drop file here' Box.

Prior to uploading the data file, you must first select whether the data being loaded represents 'Component items' or 'Finished Goods'.

You also need to over-ride the default value for the 'Calendar Week No'. This should be same Calendar week as the current Inventory On Hand week. For example, if the base data to be loaded was exported from the system in calendar week 5 then enter a value of 5 in the white box, and then upload the data file.

Note: This calendar week is used within the Triple Play analysis and informs the system of the Stock On Hand position at week 53 (i.e current week).



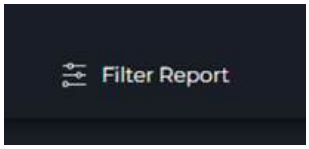
6.0 Common Functions

Across all reports there are some common features / options.

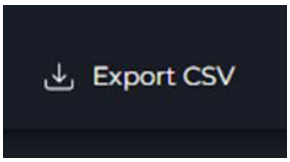
1. To Run any report, you click on the 'GENERATE REPORT' button:

2. To Switch Views from a Chart to a Table view:

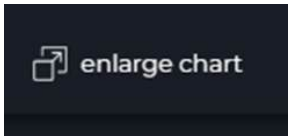
3. You can filer which items you only wish to see by clicking on the filter button and selecting the items you would like to view only:



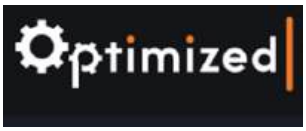
4. You can also Export a report to MS Excel by clicking on the 'Export CSV' button which generates a CSV file which can be viewed or edited within MS Excel:



5. To Expand the size of a particular chart, click on the 'Enlarge Chart' Button, and click again to switch to the original chart size:

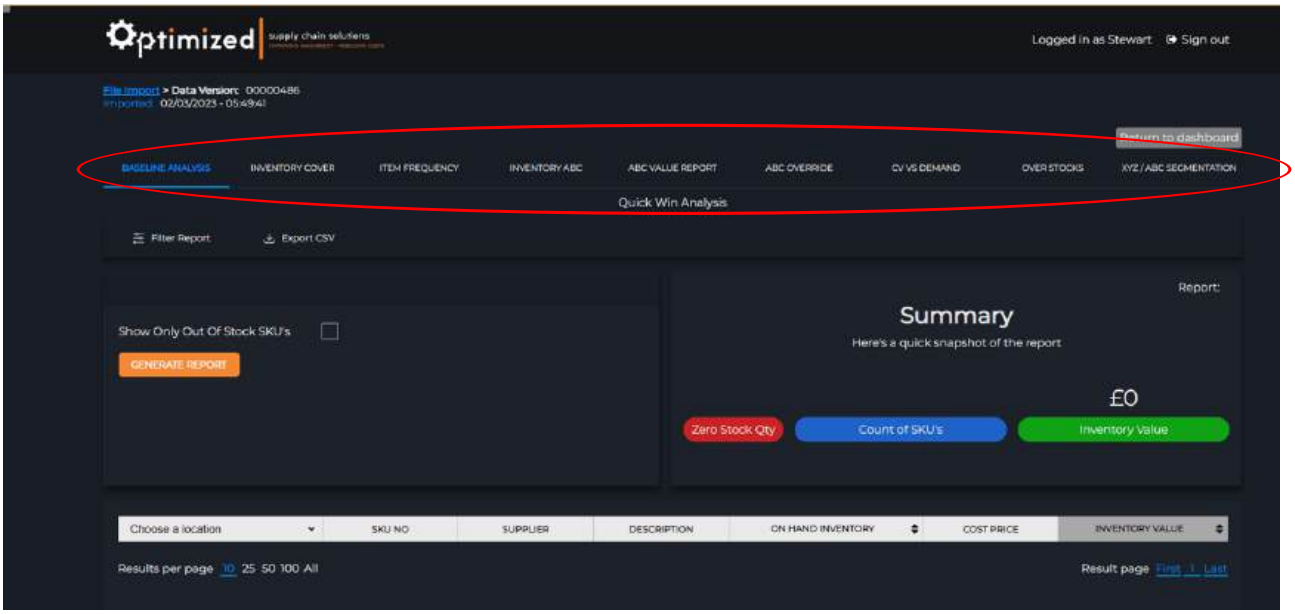


6. Once the Import file is loaded click on the 'Optimized' Logo to go back to the 'User Desktop' Screen. You can click on the Logo at any time from any part of the application to return to the 'User Desktop Screen'.



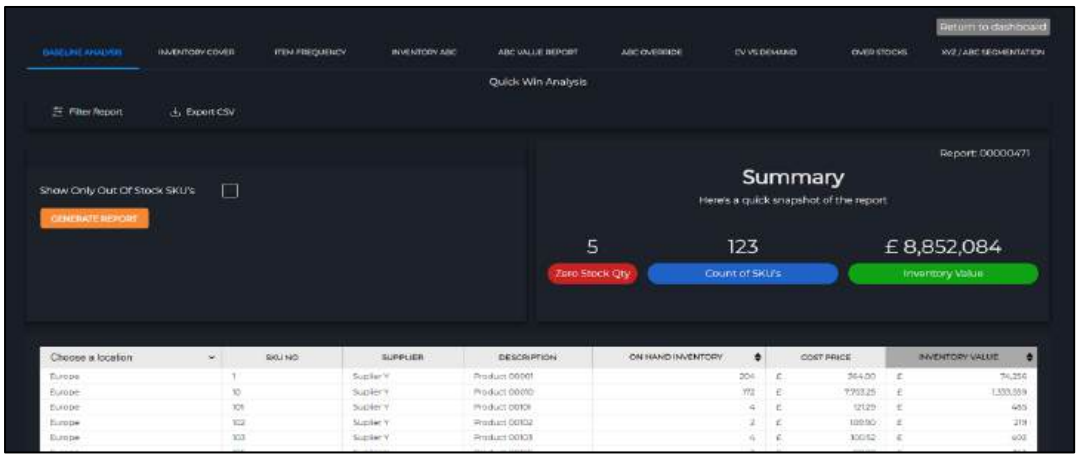
6.0 Quick Win Analysis

Within the 'Quick Win Analysis' Screen you will have access to a number of reports – highlighted below, from 'Baseline Analysis' on the left to 'XYZ / ABC Segmentation' on the right.



6.1 Baseline Analysis

To Understand the 'current' inventory position or 'Baseline' position you click on the 'GENERATE REPORT' button. This report shows the number of SKUs imported, Current Total Value and the Number of Out of Stock SKUs. You can choose to show only the Out of Stock SKUS by clicking on the 'Check Box'.

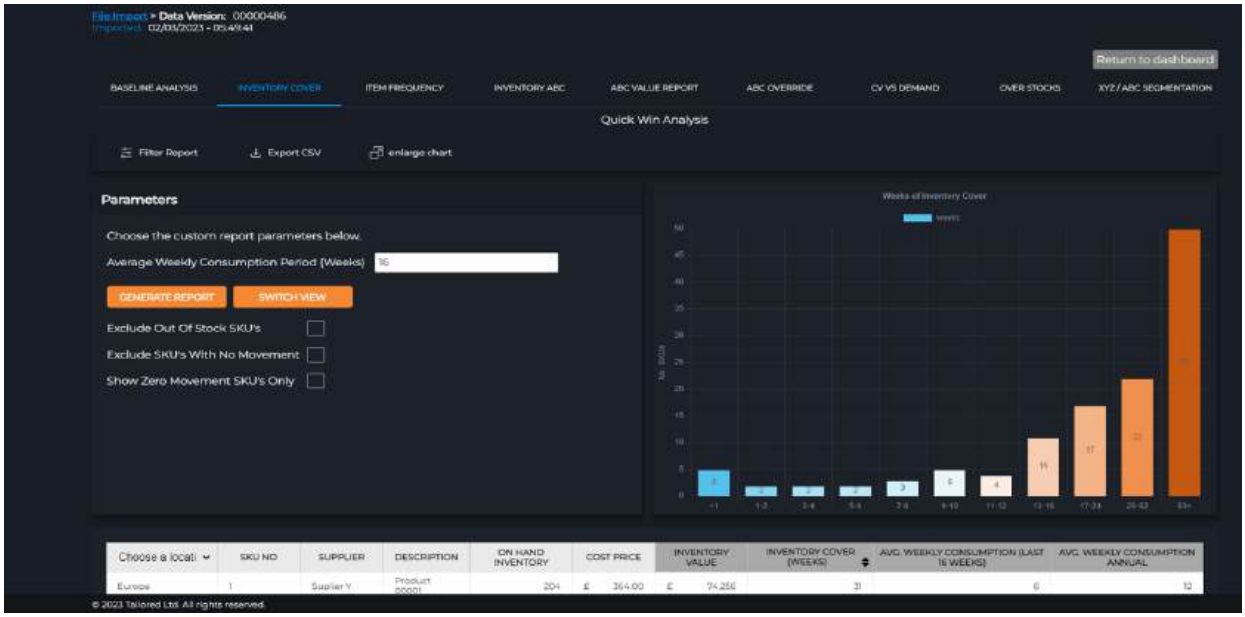


6.2 Inventory Cover

The 'Inventory Cover' report analyses the amount of Inventory in 'weeks of demand equivalent' based on the average weekly consumption across the 'Average Weekly Consumption Period'. This report is used to identify potential 'Over Stocks' versus historical demand.

The chart below shows that there are 50 SKUs with On Hand Inventory Quantities > than 53 weeks of historical demand. And 5 SKUS with On Hand Inventory Quantities < 1 week of historical demand.

The table report below the chart shows you the list of SKUs. You can click on any of the 'Bars' within the chart to filter those items only, below.



Illustrative Example 1:

If SKU 001 Stock On Hand = 500

The Average Weekly Consumption in Units over the last 16 weeks = 50 units

The Weeks of Cover for SKU 001 = 10

This means that we are holding approximately enough inventory on hand to cover demand for the next 10 weeks (based on average consumption over the last 16 weeks).

You can change the 'Consumption Period' that you would like to consider within this calculation by over writing the 'Average Weekly Consumption Period (Weeks)' Value and running the report again.

Illustrative Example 2:

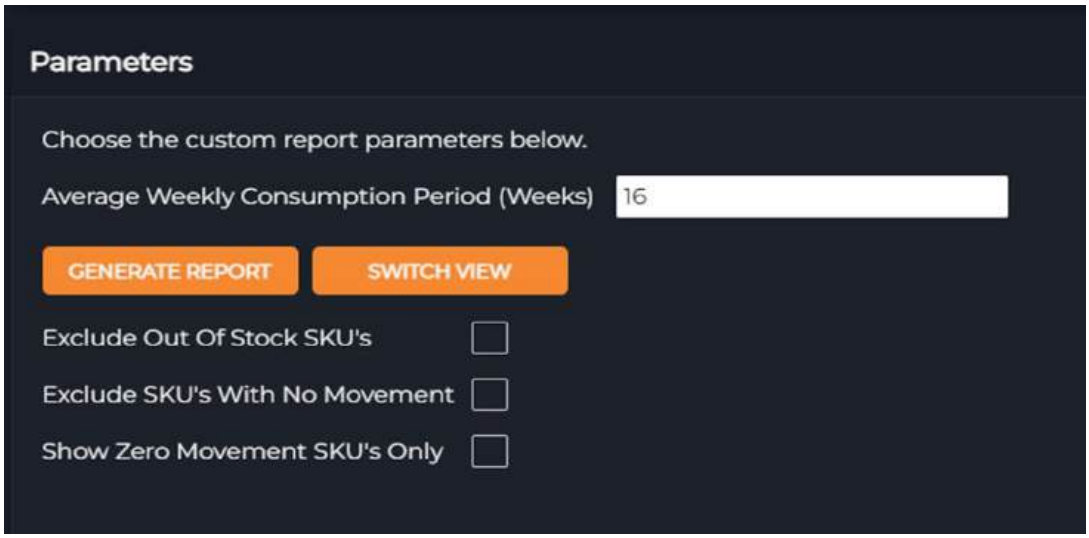
If SKU 001 Stock On Hand = 500

The Average Weekly Consumption in Units over the last 4 weeks = 100 units

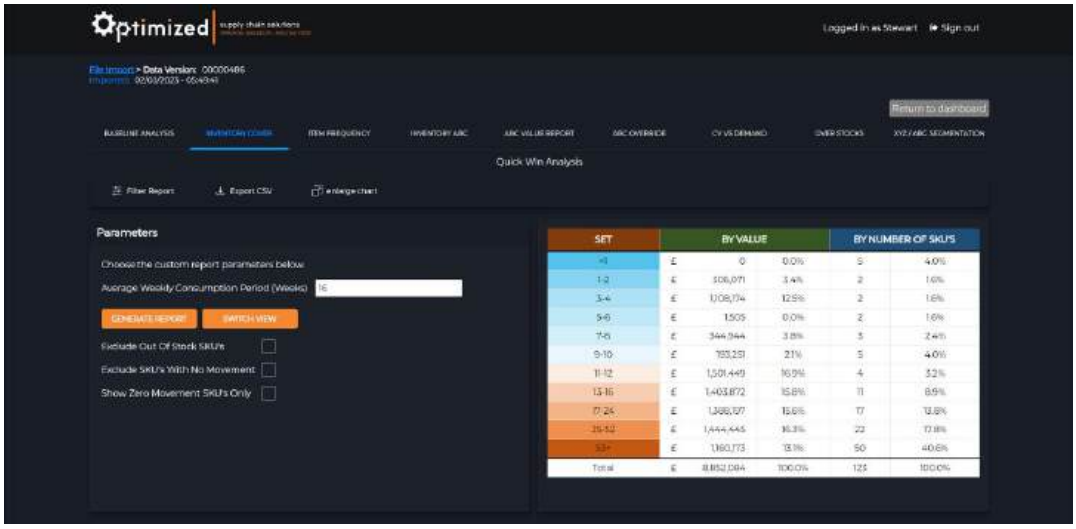
The Weeks of Cover for SKU 001 = 5

6.2.1 Parameters

Within the report there are several parameters you can change to create different views within the chart / report:



You can also switch between a 'Chart' view and a 'Table' view by clicking on the 'SWITCH VIEW' Button:

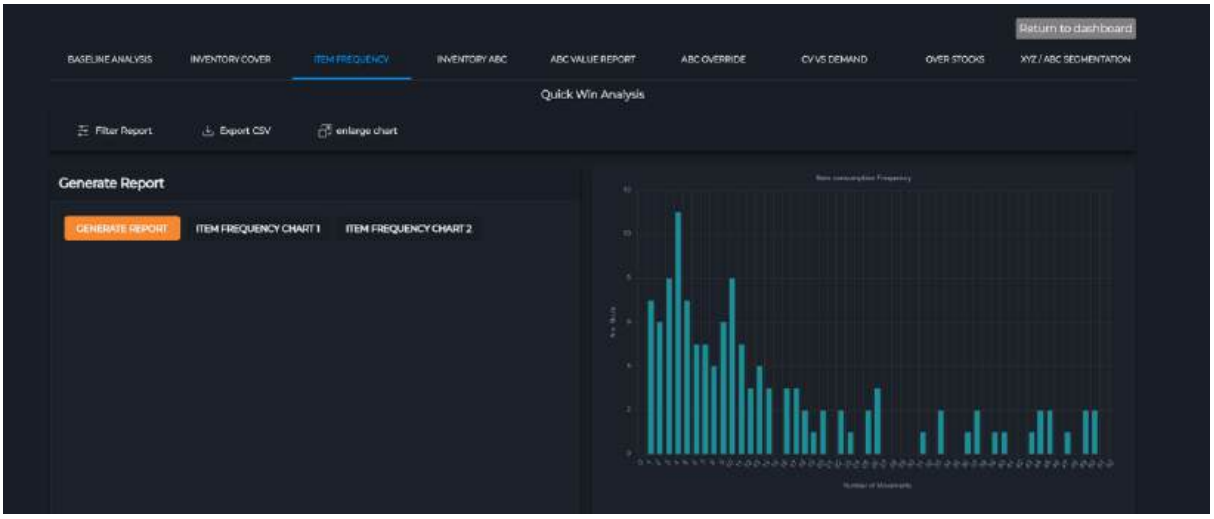


6.3 Item Frequency

The 'Item Frequency' Report analyses the number of movements or sales from the warehouse location within a given week. We refer to this as 'SKU Velocity'.

There are two views of the 'Item Frequency' report.

The first view (ITEM FREQUENCY CHART 1) shows the number of SKUs against the number of weekly movements as a Histogram Chart. In the example below there are 7 SKUs that have had only one week when a stock consumption was recorded across the 52-week period. These are the slowest movement SKUs (Slow SKU Velocity). On the right-hand side of the chart there were 2 SKUs that had movements (or consumptions) across each 50-week buckets – These are your fast moving SKU's (Fast SKU



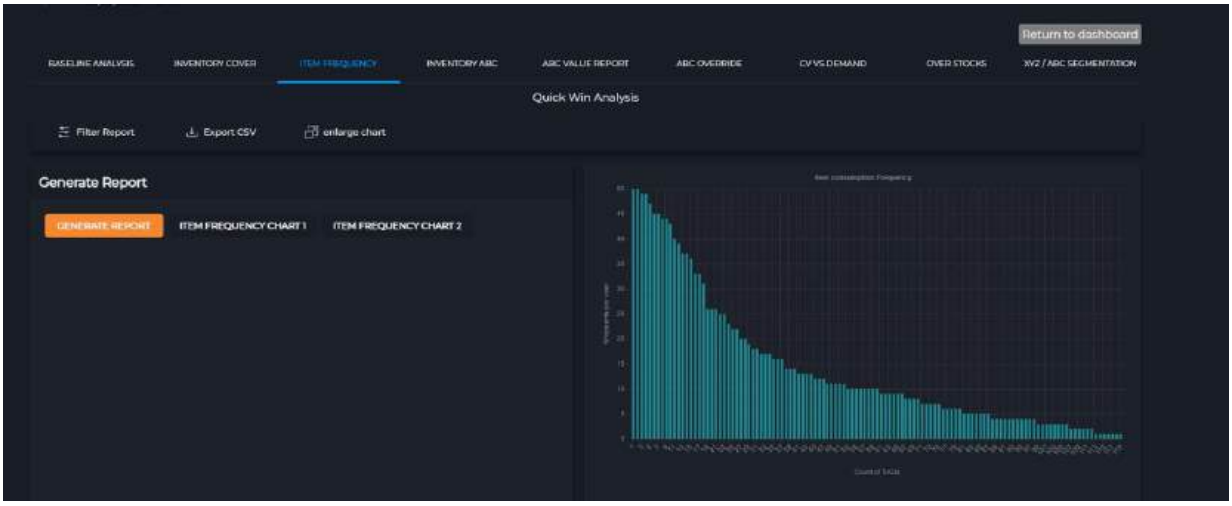
Velocity).

An alternative view of the same data can be viewed by clicking on the 'ITEM FREQUENCY CHART 2' Button which shows each individual SKU and the number of movements. This Chart simply shows the 'Shape' of your inventory velocity as a rough guide to start to understand the Stock profile from Fast (on the left), Medium, Slow movers and the 'Inventory Tail'.

6.4 ABC Analysis

Traditional inventory ABC analysis classifies 'A' items as most important, and 'C' items as least important. ABC analysis is similar to Pareto's 80:20 principle in that 'A' items typically account for a large proportion of overall value but a small percentage of the number of items.

Optimize classifies a SKU based on SKU velocity or consider frequency of movement and any SKU not meeting the 'minimum' number of movements threshold would be classified as a 'D' item (a Make to Order or a 'Non-Stock' item). What determines an appropriate movement threshold will vary by industry sector. The over-ruling criteria for stocking or not stocking an item should be dictated by the



competitiveness of the market and customer lead time expectations.

The Application has Default SKU thresholds for each A,B,C, and D classifications:

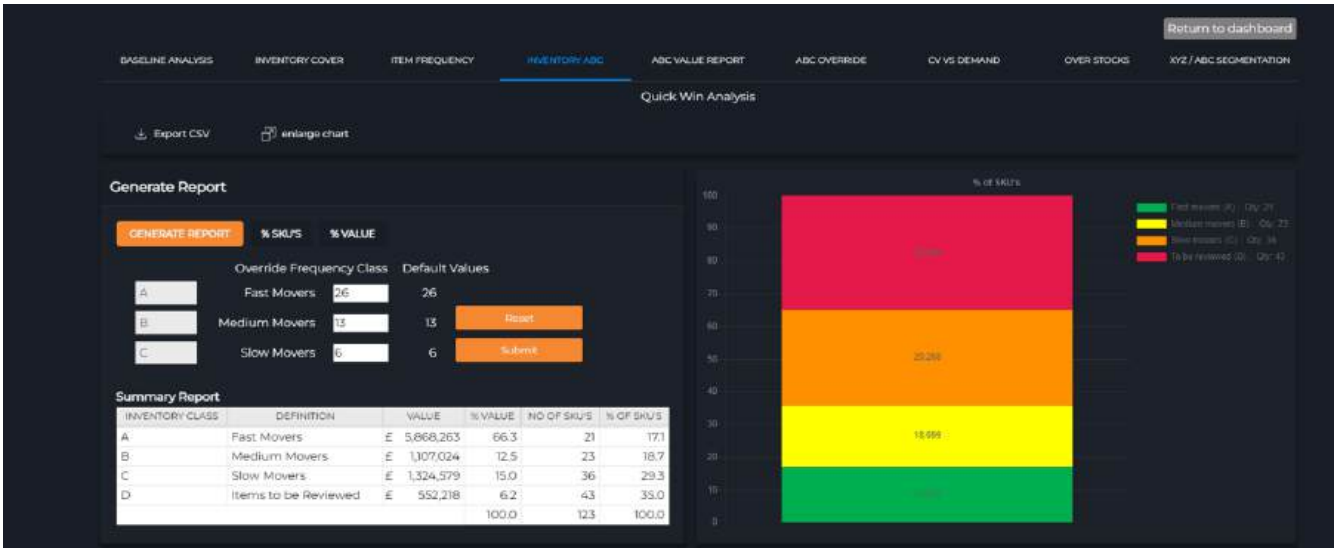
Fast Movers = 26 weekly movements

Medium Movers = 13 weekly movements

Slow Movers = 6 weekly Movements.

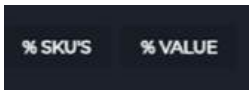
Any SKU which has less than 6 weekly bucket movements would be classified as a 'D' Item – A SKU that should be reviewed as whether it should really be stocked or not.

You should decide on appropriate thresholds based on your company's demand profile.



To overwrite the default values, simply click into each box containing the value and type and appropriate value and then press the 'Submit' button'. To Reset to the 'Default' values click on the 'Reset' Button.

The initial analysis displays the ABC chart based on the % of SKUs within each ABC category. To switch to the alternative view of '% Value' click on the '% VALUE' Button.

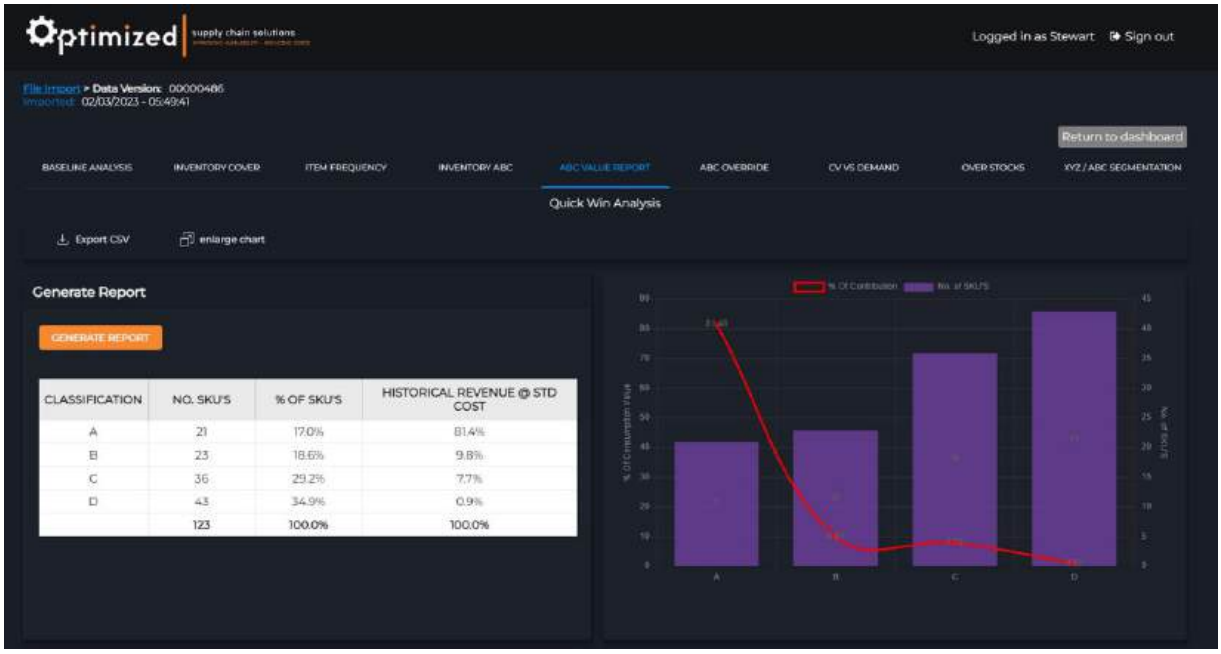


6.5 ABC Value Report

An alternative view of the ABC analysis is the 'ABC Value Report' which shows the same ABC analysis data in a different graphical form.

Generate the report by clicking on the 'GENERATE REPORT' button.

Depending on whether the data loaded was loaded as 'Components' or 'Finished Goods' the table heads and Chart Axis titles will be different e.g Components will be displayed as 'Historical Usage' and Finished Goods displayed as 'Historical Revenue'. In the example below the Items were loaded as 'Finished Goods'



CLASSIFICATION	NO. SKU'S	% OF SKU'S	HISTORICAL REVENUE @ STD COST
A	21	17.0%	81.4%
B	23	18.6%	9.8%
C	36	29.2%	7.7%
D	43	34.9%	0.9%
	123	100.0%	100.0%

The table / chart displays the Number of SKUs (Bar charts) v the Historical Contribution (Finished Goods) or Historical Usage value so that you can see by ABC category how the ABC items contribute to revenue or usage.

6.6 ABC Override

ABC Classifications are never black or white and different stakeholders will debate the importance of each SKU based on other factors e.g a New SKU, or expensive / costly SKU. There is therefore an option to override the SKU classification.

To Change the default ABC classification based on the SKU Velocity Thresholds, Click on the ABCD box against the appropriate SKU to change it. The ABCD box will change from Black to Orange to illustrate that the value has been changed:

SKU NO	DESCRIPTION	COST PRICE	FORECAST VALUE @ COST	RANK	%	CUM. %	ABC	OVERRIDE
1	Product 00001	£ 364	£ 229,684	25	0.5	92.5	B	A B C D
10	Product 00010	£ 7,753	£ 6,675,548	2	15.6	38.1	A	A B C D
101	Product 00101	£ 121	£ 849	107	0.0	99.9	C	A B C D
102	Product 00102	£ 109	£ 1,428	99	0.0	99.9	C	A B C D
103	Product 00103	£ 100	£ 1,105	103	0.0	99.9	C	A B C D
105	Product 00105	£ 121	£ 1,089	104	0.0	99.9	D	A B C D
106	Product 00106	£ 146	£ 1,609	98	0.0	99.9	C	A B C D
107	Product 00107	£ 131	£ 657	111	0.0	99.9	D	A B C D
108	Product 00108	£ 126	£ 1,135	102	0.0	99.9	C	A B C D
109	Product 00109	£ 228	£ 2,974	90	0.0	99.9	D	A B C D

SKU NO	DESCRIPTION	COST PRICE	FORECAST VALUE @ COST	RANK	%	CUM. %	ABC	OVERRIDE
1	Product 00001	£ 364	£ 229,684	25	0.5	92.5	B	A B C D
10	Product 00010	£ 7,753	£ 6,675,548	2	15.6	38.1	A	A B C D
101	Product 00101	£ 121	£ 849	107	0.0	99.9	C	A B C D
102	Product 00102	£ 109	£ 1,428	99	0.0	99.9	C	A B C D
103	Product 00103	£ 100	£ 1,105	103	0.0	99.9	C	A B C D
105	Product 00105	£ 121	£ 1,089	104	0.0	99.9	D	A B C D
106	Product 00106	£ 146	£ 1,609	98	0.0	99.9	C	A B C D
107	Product 00107	£ 131	£ 657	111	0.0	99.9	D	A B C D
108	Product 00108	£ 126	£ 1,135	102	0.0	99.9	C	A B C D
109	Product 00109	£ 228	£ 2,974	90	0.0	99.9	D	A B C D

Once Changed the ABC classification will remain throughout the rest of the Optimized Reports / Analysis unless you chose to reset the values back to the original values by clicking on the 'Reset Overrides' button.

6.7 CV Versus Demand Report

The CV Versus Demand Analysis is simply an illustrative report that analyses the variability of historical demand. To measure historical variability the application uses the common measure of 'Co-efficient of Variation' which is a common approach to measuring variability.

$$CV = \frac{\sigma}{\mu}$$

σ = population standard deviation

μ = population mean

When the report is generated, a chart is produced with Min and Max Thresholds (Green Lines) which indicate that items with a CV between the values of 0.3 and 0.7 have relatively low historical variability in demand or usage. This indicates that these items should be more predictable and easier to manage from an inventory perspective. A word of caution – The measure does rely on a having a reasonable volume of data and is not an appropriate measure for SKUs with seasonality. However, it can provide an indicative view of variability.

N.B – This report ignores any SKU that were categorised as a 'D' (recommend that these are a Non-Stocked Item).

6.8 Over Stocks Report

The over stocks report identifies in 'simplistic' terms the Stock On Hand v Average Consumption and displays these in 'Multiple' buckets. The 'Multiples' are simply the Inventory On Hand divided by the average consumption within the total 52-week period.

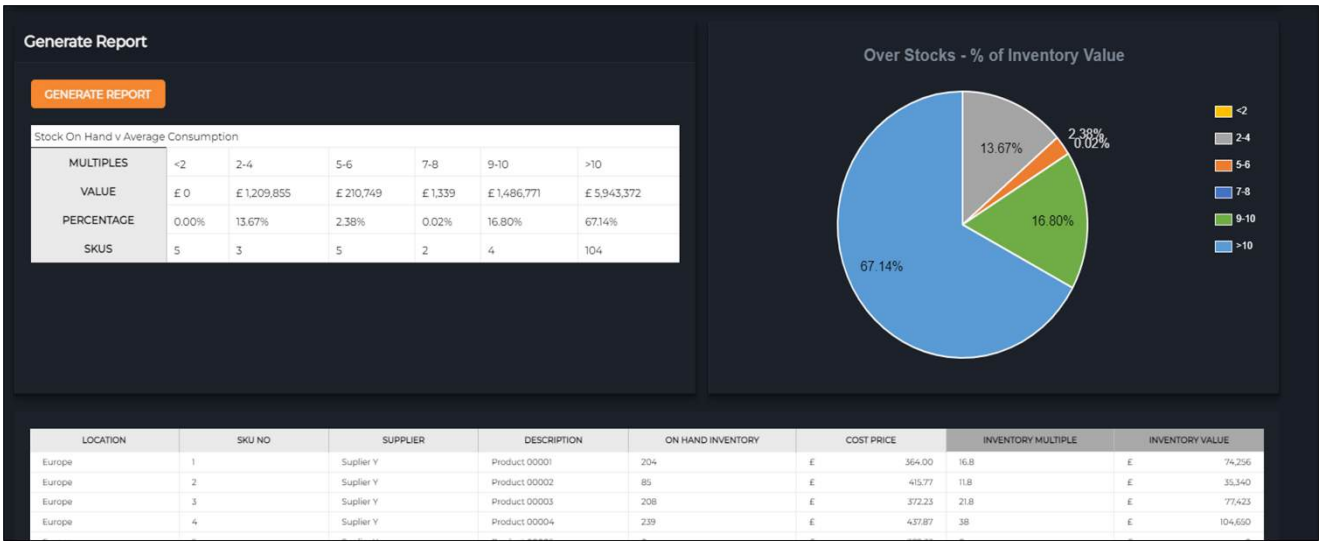
Illustrative Example:

SKU 1 has Inventory On Hand of 20 units.

Average consumption per week over the 52-week period = 12.13

Therefore, the Inventory Multiple = 16.8

The SKU will then fit into the Multiple range of '>10' within the table.



Stock On Hand v Average Consumption

MULTIPLES	<2	2-4	5-6	7-8	9-10	>10
VALUE	£ 0	£ 1,209,855	£ 210,749	£ 1,339	£ 1,486,771	£ 5,943,372
PERCENTAGE	0.00%	13.67%	2.38%	0.02%	16.80%	67.14%
SKUS	5	3	5	2	4	104

LOCATION	SKU NO	SUPPLIER	DESCRIPTION	ON HAND INVENTORY	COST PRICE	INVENTORY MULTIPLE	INVENTORY VALUE
Europe	1	Suplier Y	Product 00001	204	£ 364.00	16.8	£ 74,256
Europe	2	Suplier Y	Product 00002	85	£ 415.77	11.8	£ 35,340
Europe	3	Suplier Y	Product 00003	208	£ 372.23	21.8	£ 77,423
Europe	4	Suplier Y	Product 00004	239	£ 437.87	38	£ 104,650

6.9 XYZ / ABC Segmentation

XYZ segmentation is used to segment inventory based on variability in demand rather than SKU velocity. 'X' = low variability in demand and 'Z' = high variability in demand. Co-efficient of variation is used to measure variability. In XYZ segmentation X items are characterised by steady and very predictable demand, Y items are less stable but relatively predictable and finally Z items are very unstable and unpredictable. The implications of this segmentation approach are that X items are typically easier to forecast and therefore will require less inventory coverage whereas Y and Z items are harder to forecast due to their variability and therefore will require more inventory coverage.

The XYZ / ABC Segmentation report combines both ABC and XYZ Segmentation to enable you to understand a SKU in terms of SKU Velocity and Variability and determine how easy or difficult the ABC SKUS will be to manage.

N.B – This report ignores any SKU that were categorised as a 'D' (recommend that these are a Non-Stocked Item).

To generate the analysis, click on the 'GENERAGE REPORT' button.

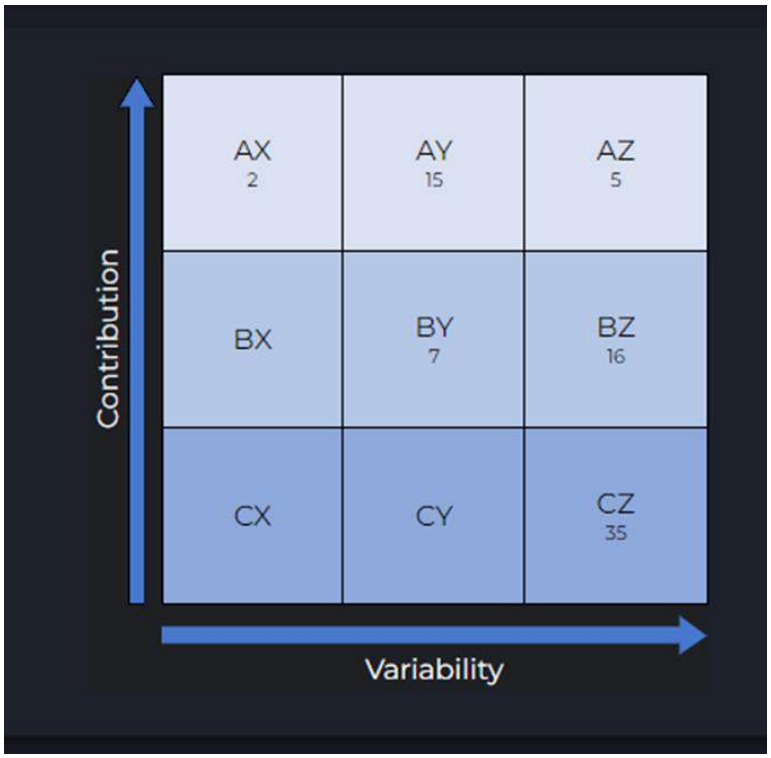
The analysis is displayed as a table and as a 6 box Matrix.

Table Analysis:

XYZ DEFINITION	NO OF SKU'S	TOTAL REVENUE @ STD COST	% REVENUE @STD COST
X:	2	£ 11,221,777	26.6%
Y:	22	£ 24,902,912	59.0%
Z:	56	£ 6,104,683	14.5%
Total:	80	£ 42,229,371	100%

N.B In this example the items were loaded as 'Finished Goods', therefore the column heading is displayed as '% Revenue @ Std Cost'. If the items were components this column would be displayed as 'Historical Consumption @ Std Cost'

The 6 Box Matrix:



The report shows the number of SKUs within each XYZ / ABC segment. Those SKUS within the 'AX; segment have the lowest historical demand variability and either contribute the most value (if Finished Good) or Most 'historical Usage' at standard cost. In the bottom right corner, the 'CZ' SKUs are contributing or least used historically and have high variability. These SKUs will typically be more difficult to manage.

7.0 Inventory Optimization

Once SKUs have been segmented and classified as either a 'Stocked' ABC item or 'Non Stocked' D item the next step in the inventory management process is to determine the appropriate Stocking Policy for the ABC SKUs.

We do this by modelling the inventory using different inventory models and run various scenarios to determine the appropriate stocking policy for your business / situation.

The application has three different inventory models:

- **Statistical Model** – All ABC Inventory Targets are based on a given target service (Availability) level.
- **Demand Cover Model** – A simplistic Policy of setting overall inventory targets based on a 'Weeks of demand' inventory cover.
- **Statistical Model / Demand Cover Model** – A & B SKUs Inventory Targets are based on a given service target and C SKUs are based on a 'Weeks of demand' inventory cover.

N.B No Inventory model (including those models outside of the application) provide a perfect answer. The targets recommended are simply based on the characteristics of historical demand and ABS thresholds used and are not 100% accurate. Experience and knowledge should always be considered in conjunction with the application's recommendations.

7.1 Statistical Model

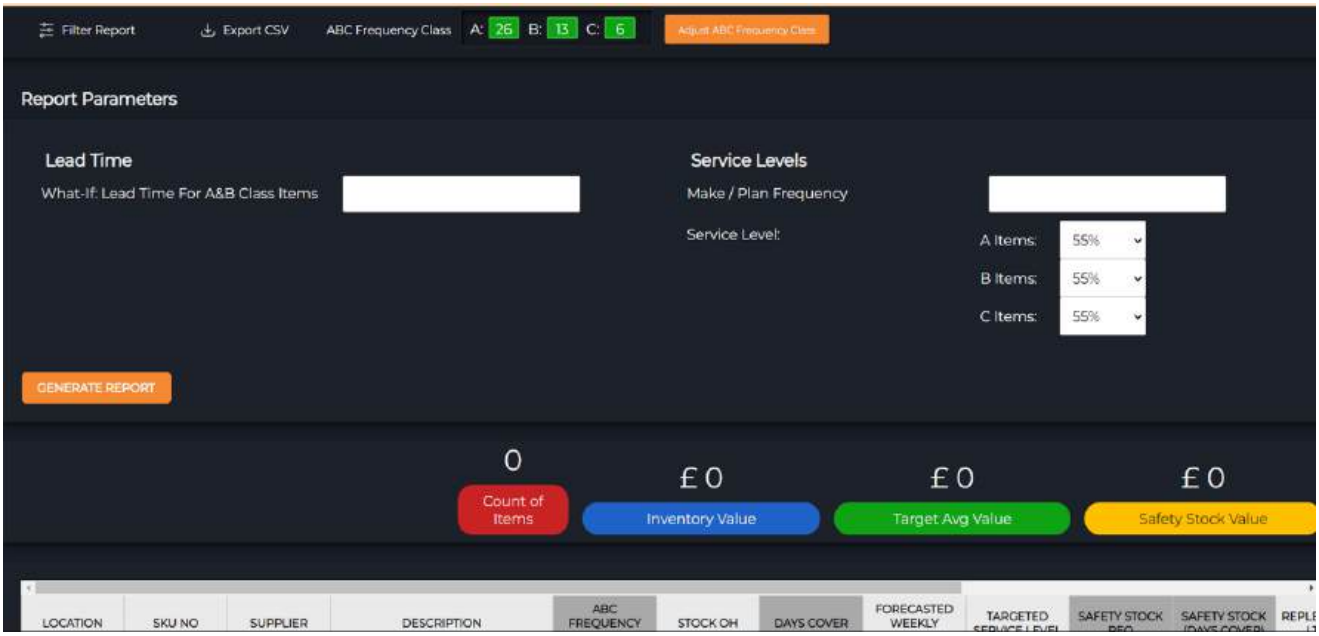
The statistical model calculates a Target Inventory level based a statistically algorithm using the following inputs: Variation in historical demand, lead time, the forecasted weekly demand, a % Service or Availability target, and the frequency of plan / make.

N.B The algorithm assumes Supplier performance (OTIF) is 100% because we are calculating a theoretical target.

The Service level (availability target) can set by Inventory ABC category as you might like to set higher service targets on your most important SKUs.

Before generating the Analysis:

1. Enter the average Make / Plan Frequency, i.e if you make these products or plan these products weekly enter 0.5. If you plan / make these products every 2 weeks, you would enter 1.
2. Next select the % Service you would like to target for each ABC category by selecting the target % from the drop-down arrow against each ABC category.
3. Click on 'GENERATE REPORT'



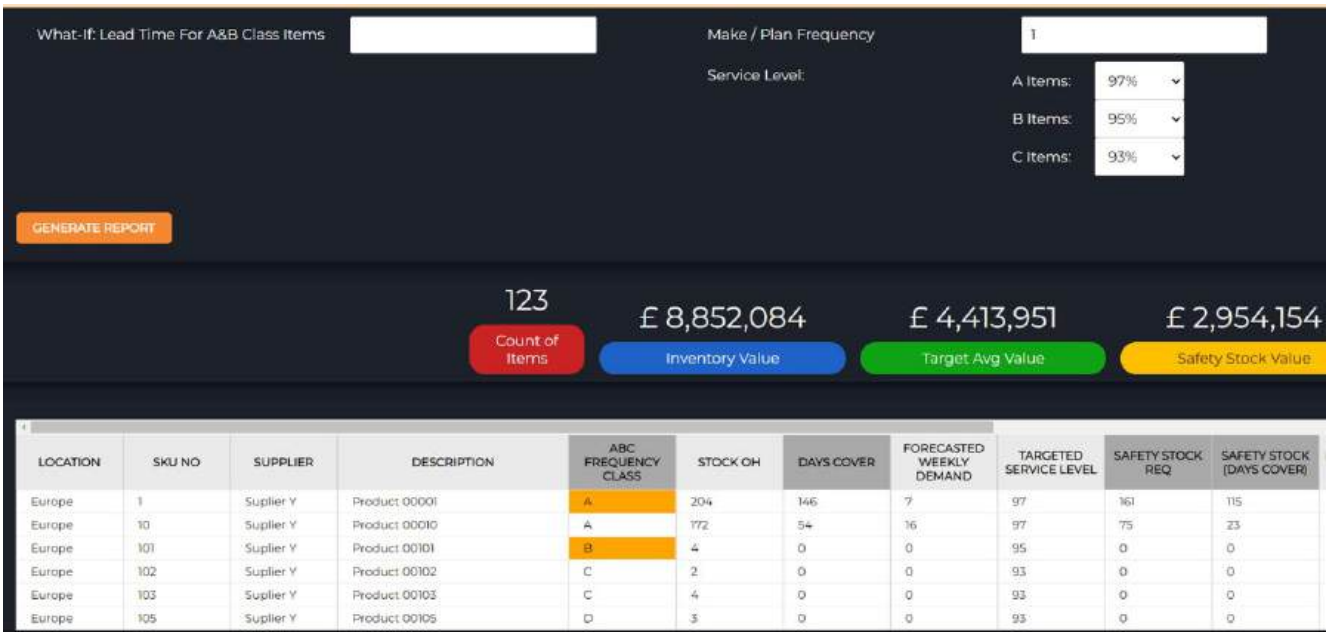
N.B For 'D' Class SKUs Target Stock = Zero as the application assumes that we will NOT aim to carry stock for these SKUs because the minimum 'SKU Velocity' threshold was not met within the ABC segmentation.

When the report is generated, the report displays both a summary at the top and a detailed report by SKU below.

Illustrative Example:

- In this scenario a Plan Frequency of 1 was set meaning that the product is planned every 2 weeks.
- Service targets were selected as follows: A = 97%, B =95%, and C = 93%
- The Blue 'Inventory Value' = The Baseline or Current Inventory Value (£8,885,084)
- The Green 'Target Avg Value' = The Target stock value
- The Yellow 'Safety Stock Value' = The value of the safety stock needed to support the targeted service level within the overall Target value.

One other 'What If' that can be performed here is to change the lead time of the A & B SKUs to understand the impact of an increased or reduced lead time. To do this, simply enter a value in the field (lead time in weeks) and Generate the report again,



LOCATION	SKU NO	SUPPLIER	DESCRIPTION	ABC FREQUENCY CLASS	STOCK OH	DAYS COVER	FORECASTED WEEKLY DEMAND	TARGETED SERVICE LEVEL	SAFETY STOCK REQ	SAFETY STOCK (DAYS COVER)
Europe	1	Suplier Y	Product 00001	A	204	146	7	97	161	115
Europe	10	Suplier Y	Product 00010	A	172	54	16	97	75	23
Europe	101	Suplier Y	Product 00101	B	4	0	0	95	0	0
Europe	102	Suplier Y	Product 00102	C	2	0	0	93	0	0
Europe	103	Suplier Y	Product 00103	C	4	0	0	93	0	0
Europe	105	Suplier Y	Product 00105	D	3	0	0	93	0	0

N.B Any SKU that has had the ABC classification over-written will be highlighted in Orange (See above).

7.2 Demand Cover Model

The Demand Cover Model uses a simple 'Weeks of Cover' Inventory Policy to set Inventory Targets.

To run the analysis, enter the 'Target Weeks of Cover' in the white text box and click on 'GENERATE REPORT'.

The Target Stock figure is shown in Green and the detailed report by SKU in the report below. The figure in Blue is the Baseline or Current Stock on hand value.

There is No Safety Stock Value as this stock policy does not have Safety Stock.

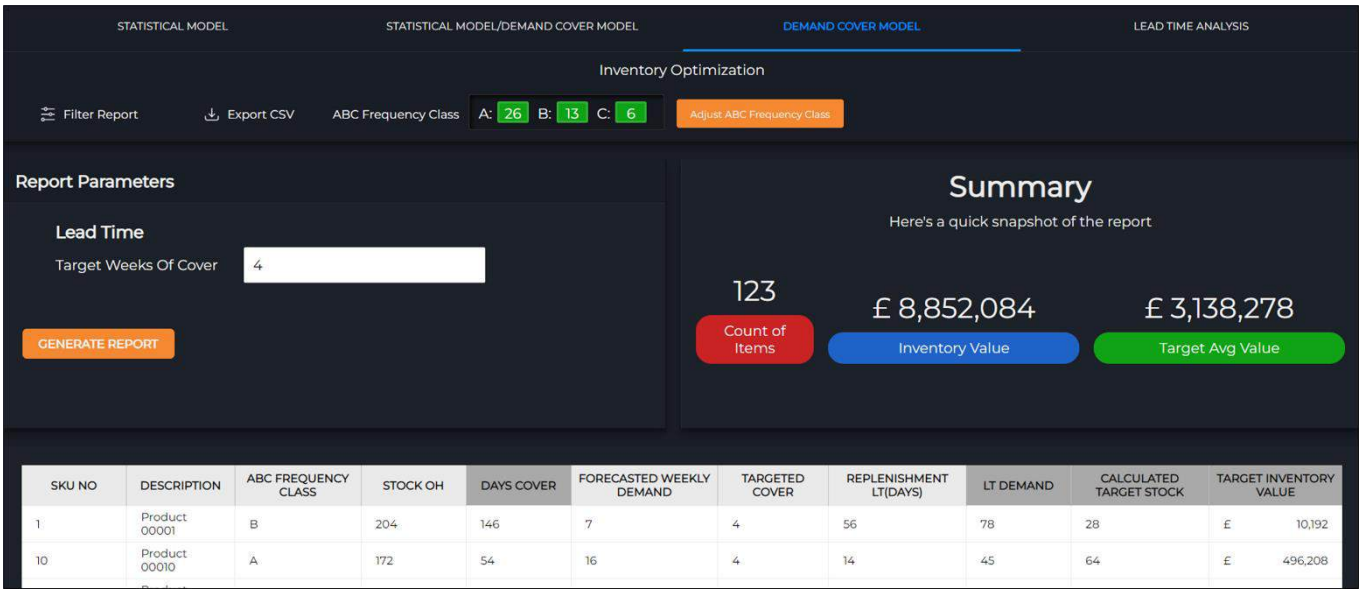
Illustrative Example:

SKU 1 has a weekly forecast of 7 Units per Week

The Weeks Cover Target has been set to 4

Therefore, the Target Stock = 7 X 4 = 28 Units of Stock

We do not recommend this Inventory Policy across all stock items if you would like to meet specific Service or Availability Targets as the approach is quite 'Blunt / Basic'. However, for certain items that are difficult to forecast or predict then this stock policy may be applicable.



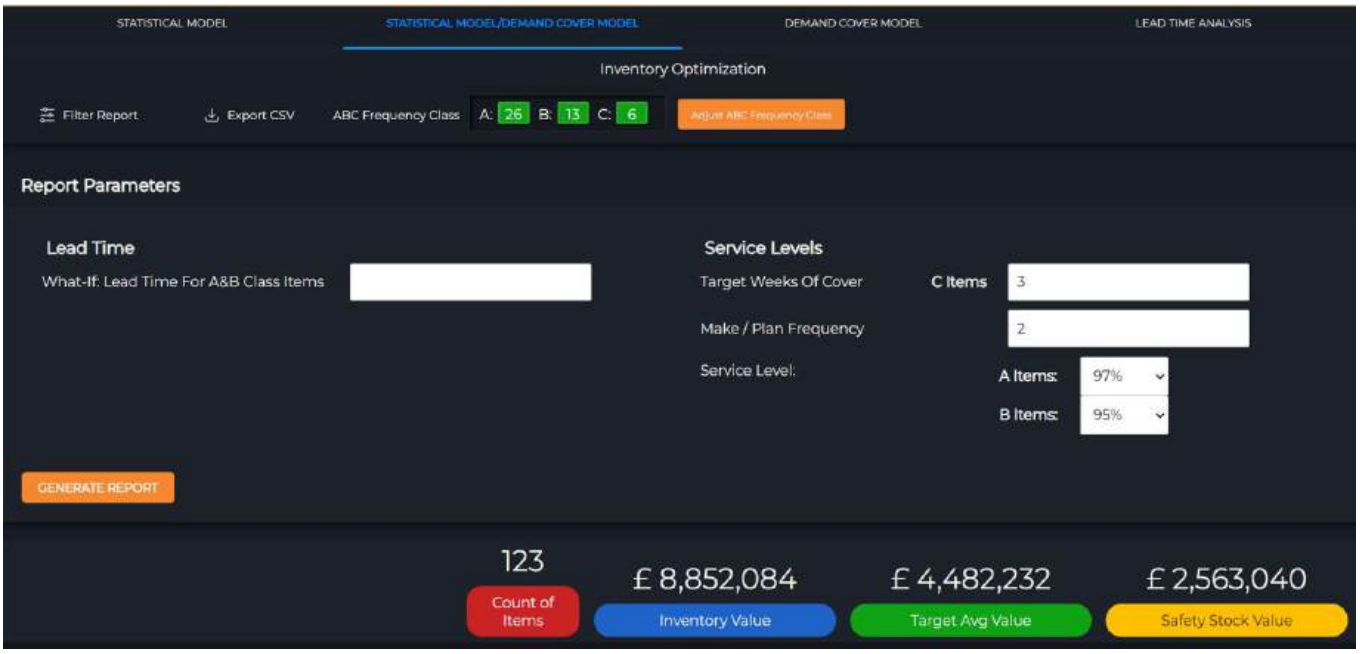
SKU NO	DESCRIPTION	ABC FREQUENCY CLASS	STOCK OH	DAYS COVER	FORECASTED WEEKLY DEMAND	TARGETED COVER	REPLENISHMENT LT(DAYS)	LT DEMAND	CALCULATED TARGET STOCK	TARGET INVENTORY VALUE
1	Product 00001	B	204	146	7	4	56	78	28	£ 10,192
10	Product 00010	A	172	54	16	4	14	45	64	£ 496,208

7.3 Statistical Model / Demand Cover Model

The 3rd stock model combines the functionality of the first two models (Statistical and Demand Cover).

For A&B Categorised SKUs the Statistical Algorithm is applied and for C Class SKUs the demand cover model is applied.

To generate the report, complete the 'Weeks of Cover' field for the C class SKU's, the plan / make frequency, and the Target Service levels for the A&B SKUs. Then click 'GENERATE REPORT'.

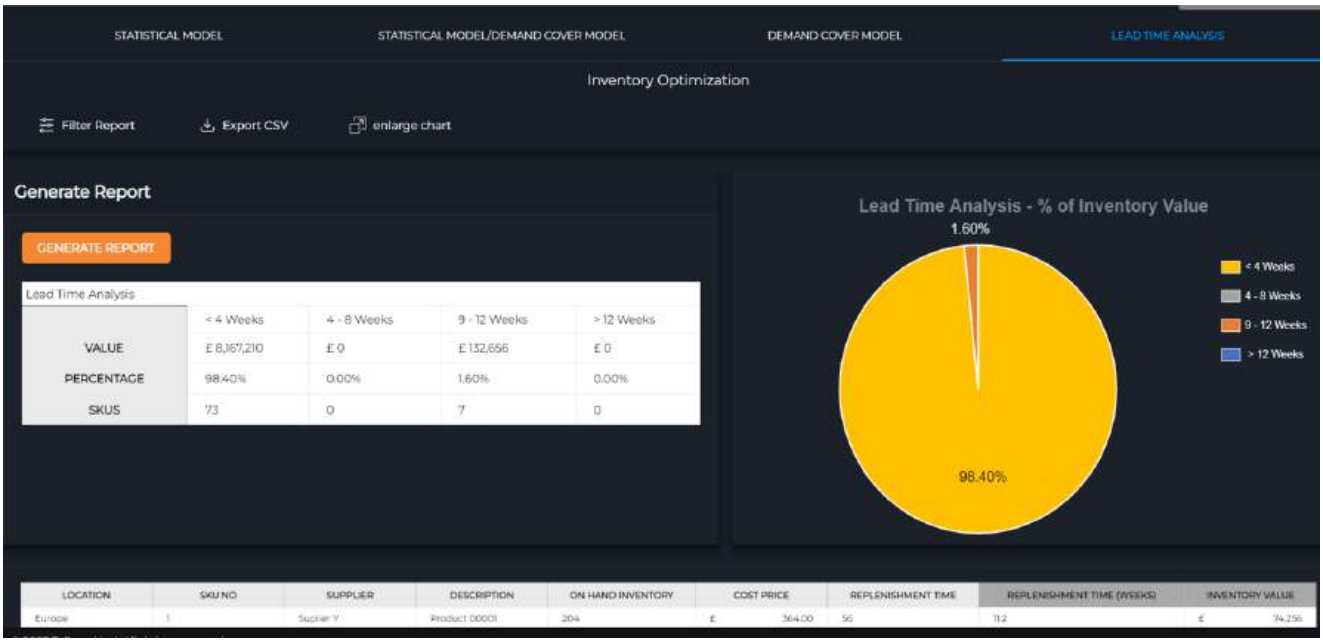


N.B For 'D' Class SKUs Target Stock = Zero as the application assumes that we will NOT aim to carry stock for these SKUs because the minimum 'SKU Velocity' threshold was not met within the ABC segmentation.

7.4 Lead Time Analysis

The final report within the Inventory Optimization section is the Lead Time Analysis. The Lead Time Report summaries and categorises the SKU lead times so that you can understand whether SKU Target inventory levels are influenced by particularly long lead times.

In the example below you can see that the majority of SKUs have lead times less than 4 week long, with 7 SKUs having lead times between 9-12 Weeks long. The report highlights where you might want to challenge supplier lead times or consider opportunities to reduce lead times as this will influence target inventory levels.



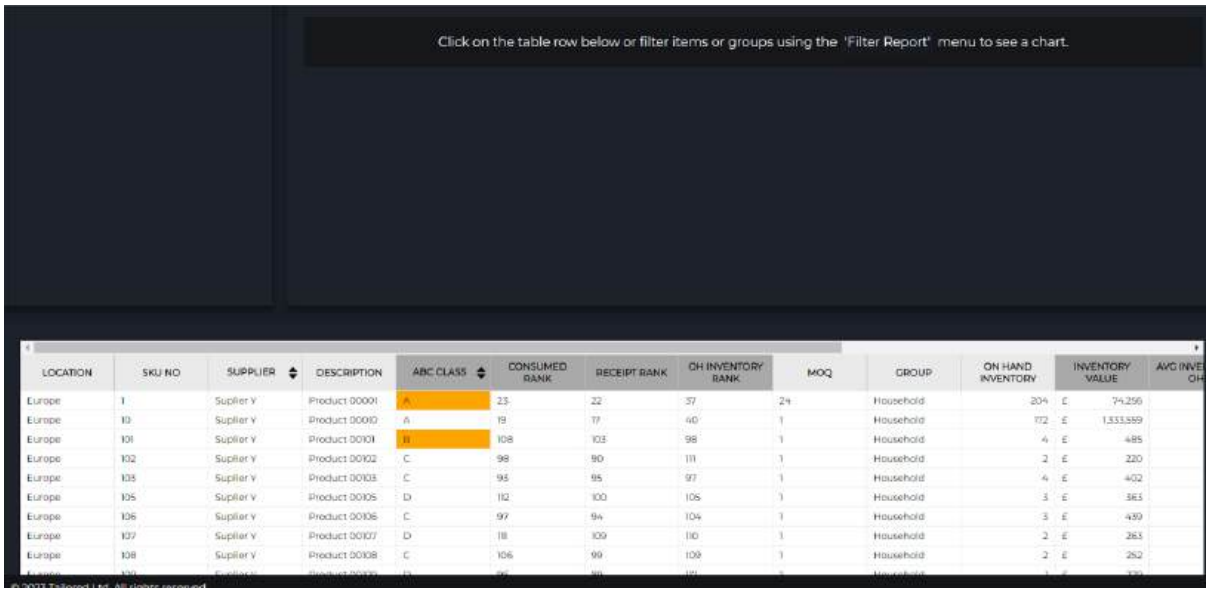
8.0 Triple Play Analysis

The Triple play analysis allows you to review the inventory management performance of individual SKUs over a 52 week period. The detailed analysis allows you to understand how synchronised demand and supply are, and how well a individual SKU has been managed. The application does this by creating a virtual historical representation of the On Hand Position of the SKU using receipt and consumption data.

To generate the analysis, click on 'GENERATE REPORT'.

Once the report has been created you then need to select the SKU to review from the list below.

Simply 'click' on the SKU / row and the Triple Play Chart will be created above.



LOCATION	SKU NO	SUPPLIER	DESCRIPTION	ABC CLASS	CONSUMED RANK	RECEIPT RANK	OH INVENTORY RANK	MOQ	GROUP	ON HAND INVENTORY	INVENTORY VALUE	AVG INVE OH
Europe	1	Suplier Y	Product 00001	A	23	22	37	24	Household	204	£ 74,256	
Europe	10	Suplier Y	Product 00010	A	19	17	40	1	Household	172	£ 1,333,559	
Europe	101	Suplier Y	Product 00101	B	108	103	98	1	Household	4	£ 485	
Europe	102	Suplier Y	Product 00102	C	98	90	111	1	Household	2	£ 220	
Europe	103	Suplier Y	Product 00103	C	93	95	97	1	Household	4	£ 402	
Europe	105	Suplier Y	Product 00105	D	112	100	106	1	Household	3	£ 363	
Europe	106	Suplier Y	Product 00106	C	97	94	104	1	Household	3	£ 439	
Europe	107	Suplier Y	Product 00107	D	118	109	110	1	Household	2	£ 263	
Europe	108	Suplier Y	Product 00108	C	106	99	109	1	Household	2	£ 252	

Once the Triple Play Analysis Chart is created you will see a Chart. The Chart shows Historical receipts (Inbound stock movements), Consumption (Outbound stock movements), The Average Demand, and Target Stock levels recommended based on the Stock Policy and Target selected within the Inventory Optimization section.

If you move your mouse across the weeks, the data for that particular week will show in the box e.g the information box shows the values for Week 40.

To switch between showing the Statistical Model Inventory Target and the Demand Cover Model Target, select the option on the left.

N.B When you select the 'Show Demand Cover Target' there will be no Safety Stock line on the chart because this particular model does not have Safety Stock.

The detailed information about the SKU (ABC Category, CV, MOQ etc…) is displayed below the chart. To Select an alternative SKU, click on the 'RESET VIEW' button on the left.

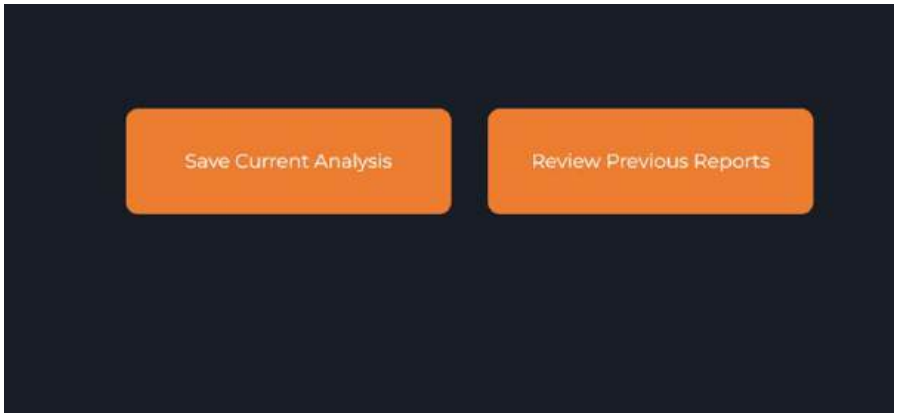
If a 52-week forecast was included in the Imported Data you can view the Forecast by clicking on the 'SHOW FORECAST' button and to switch back to the Triple Play click on 'SHOW TRIPLE PLAY' button.

In this example the Import File did not include forecast data.

9.0 Save And Review Previous Reports

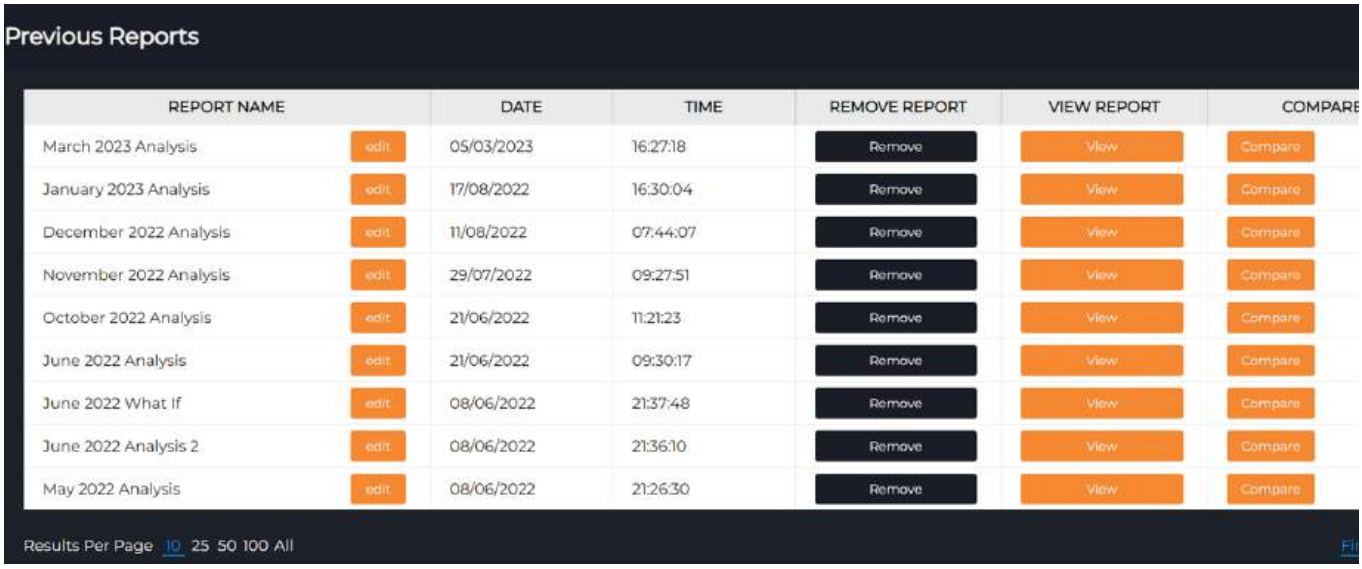
The Save and Review Previous Reports allows you to save the current analysis and scenarios as well as being able to view previous reports and compare previous reports against each other.

When you click on the 'Save And Review Previous Reports' you will have two menu options (see below).



To Save the current analysis, click on 'Save Current Analysis'

You will then see a list of previously saved Reports and the current report on the top row.

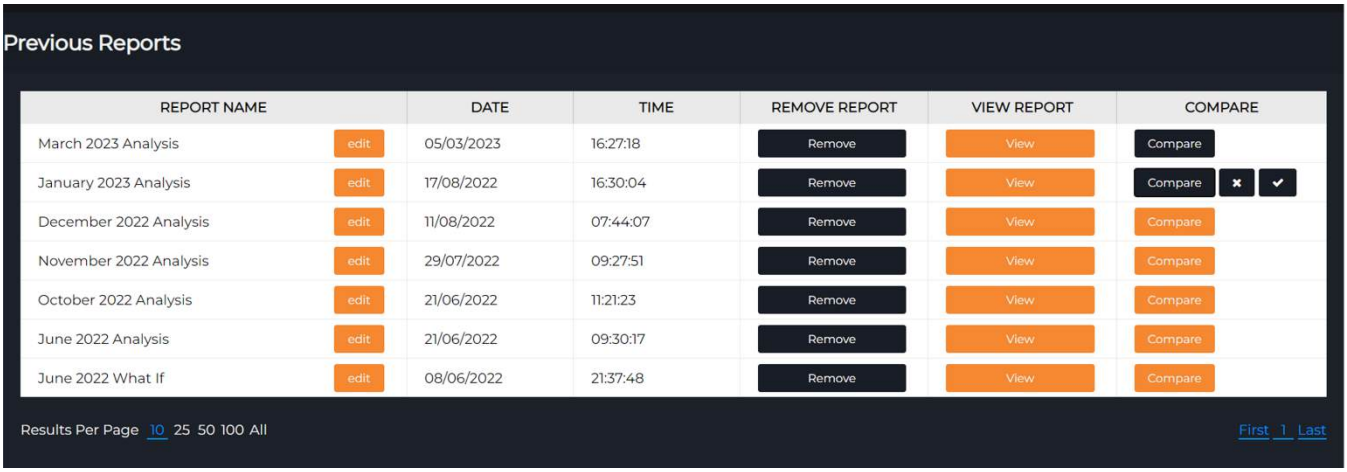


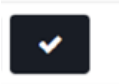
To change the default name of the report you would like to save, simply click into the 'REPORT NAME' field and type the name of the file.

To Delete a previously saved report, click 'Remove' alongside the report you would like to delete.

To view a previously saved report click on 'View' alongside the report you wish to view.

To Compare two reports, click the 'Compare' button on two reports:

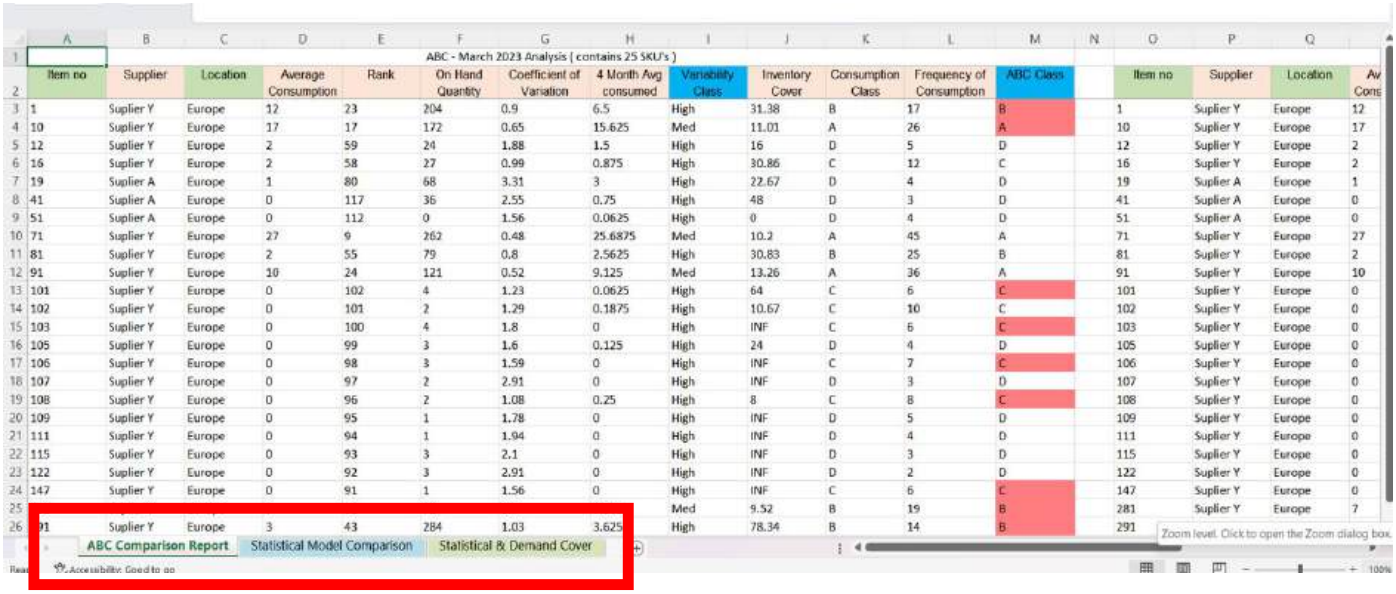


And then click on the 'Tick' symbol. 

Once you have clicked the 'Tick' symbol an MS Excel report will automatically download.

The MS Spreadsheet contains 3 Tabs

1. ABC Comparison Report
2. Statistical Model Comparison
3. Statistical & Demand Cover



ABC - March 2023 Analysis (contains 25 SKU's)

Item no	Supplier	Location	Average Consumption	Rank	On Hand Quantity	Coefficient of Variation	4 Month Avg consumed	Variability Class	Inventory Cover	Consumption Class	Frequency of Consumption	ABC Class
1	Suplier Y	Europe	12	23	204	0.9	6.5	High	31.38	B	17	B
10	Suplier Y	Europe	17	17	172	0.65	15.625	Med	11.01	A	26	A
12	Suplier Y	Europe	2	59	24	1.88	1.5	High	16	D	5	D
16	Suplier Y	Europe	2	58	27	0.99	0.875	High	30.86	C	12	C
19	Suplier A	Europe	1	80	68	3.31	3	High	22.67	D	4	D
41	Suplier A	Europe	0	117	36	2.55	0.75	High	48	D	3	D
51	Suplier A	Europe	0	112	0	1.56	0.0625	High	0	D	4	D
71	Suplier Y	Europe	27	9	262	0.48	25.6875	Med	10.2	A	45	A
81	Suplier Y	Europe	2	55	79	0.8	2.5625	High	30.83	B	25	B
91	Suplier Y	Europe	10	24	121	0.52	9.125	Med	13.26	A	36	A
101	Suplier Y	Europe	0	102	4	1.23	0.0625	High	64	C	6	C
102	Suplier Y	Europe	0	101	2	1.29	0.1875	High	10.67	C	10	C
103	Suplier Y	Europe	0	100	4	1.8	0	High	INF	C	6	C
105	Suplier Y	Europe	0	99	3	1.6	0.125	High	24	D	4	D
106	Suplier Y	Europe	0	98	3	1.59	0	High	INF	C	7	C
107	Suplier Y	Europe	0	97	2	2.91	0	High	INF	D	3	D
108	Suplier Y	Europe	0	96	2	1.08	0.25	High	8	C	8	C
109	Suplier Y	Europe	0	95	1	1.78	0	High	INF	D	5	D
111	Suplier Y	Europe	0	94	1	1.94	0	High	INF	D	4	D
115	Suplier Y	Europe	0	93	3	2.1	0	High	INF	D	3	D
122	Suplier Y	Europe	0	92	3	2.91	0	High	INF	D	2	D
147	Suplier Y	Europe	0	91	1	1.56	0	High	INF	C	6	C
								Med	9.52	B	19	B
91	Suplier Y	Europe	3	43	284	1.03	3.625	High	78.34	B	14	B

Item no	Supplier	Location	Av Cons
1	Suplier Y	Europe	12
10	Suplier Y	Europe	17
12	Suplier Y	Europe	2
16	Suplier Y	Europe	2
19	Suplier A	Europe	1
41	Suplier A	Europe	0
51	Suplier A	Europe	0
71	Suplier Y	Europe	27
81	Suplier Y	Europe	2
91	Suplier Y	Europe	10
101	Suplier Y	Europe	0
102	Suplier Y	Europe	0
103	Suplier Y	Europe	0
105	Suplier Y	Europe	0
106	Suplier Y	Europe	0
107	Suplier Y	Europe	0
108	Suplier Y	Europe	0
109	Suplier Y	Europe	0
111	Suplier Y	Europe	0
115	Suplier Y	Europe	0
122	Suplier Y	Europe	0
147	Suplier Y	Europe	0
281	Suplier Y	Europe	7
291			

Within each tab both reports are displayed and any differences between the two reports are highlighted in Red.

Statistical Model - March 2023 Analysis (contains 25 SKU's)

Location	Item No	Supplier	Description	ABC Classification	Inventory On Hand	Days of Cover	Forecasted Weekly Demand	Target Service Level	Safety Stock Req	Safety Stock cover (days)	Replenishment LT (Days)	LT Demand	Make / Plan Frequency	Calculated Target Stock Level	Target Inventory Value
Europe	1	Suplier Y	Product 00001A	A	204	146	7	97	161	115	56	78	1	204	74256
Europe	10	Suplier Y	Product 00001E	A	172	54	16	97	75	23	14	45	1	105	814091.25
Europe	101	Suplier Y	Product 00101B	A	4	0	0	95	0	0	14	0	1	0	0
Europe	102	Suplier Y	Product 00102C	A	2	0	0	93	0	0	14	0	1	0	0
Europe	103	Suplier Y	Product 00103C	A	4	0	0	93	0	0	14	0	1	0	0
Europe	105	Suplier Y	Product 00105D	A	3	0	0	93	0	0	14	0	1	0	0
Europe	106	Suplier Y	Product 00106C	A	3	0	0	93	0	0	14	0	1	0	0
Europe	107	Suplier Y	Product 00107D	A	2	0	0	93	0	0	14	0	1	0	0
Europe	108	Suplier Y	Product 00108C	A	2	0	0	93	0	0	14	0	1	0	0
Europe	109	Suplier Y	Product 00109D	A	1	0	0	93	0	0	14	0	1	0	0
Europe	111	Suplier Y	Product 00111D	A	1	0	0	93	0	0	14	0	1	0	0
Europe	115	Suplier Y	Product 00115D	A	3	0	0	93	0	0	14	0	1	0	0
Europe	12	Suplier Y	Product 00012D	A	24	60	2	97	26	65	14	6	1	0	0
Europe	122	Suplier Y	Product 00122D	A	3	0	0	93	0	0	14	0	1	0	0
Europe	147	Suplier Y	Product 00147C	A	1	0	0	93	0	0	49	0	1	0	0
Europe	16	Suplier Y	Product 00016C	A	27	135	1	93	11	55	14	3	1	13	101128.17
Europe	19	Suplier A	Product 00019D	A	68	113	3	93	16	27	14	8	1	0	0
Europe	281	Suplier Y	Product 00281B	A	72	45	8	95	37	23	14	22	1	52	13443.61
Europe	291	Suplier Y	Product 00291B	A	284	355	4	95	21	26	14	11	1	29	1751.31
Europe	301	Suplier Y	Product 00301C	A	895	746	6	93	31	26	14	17	1	42	2160.9
Europe	41	Suplier A	Product 00041D	A	36	180	1	95	4	20	14	3	1	0	0
Europe	51	Suplier A	Product 00051D	A	0	0	0	93	0	0	14	0	1	0	0
Europe	71	Suplier Y	Product 00071A	A	262	50	26	97	72	14	14	73	1	121	59813.93
Europe	81	Suplier Y	Product 00081B	A	79	132	3	95	9	15	14	8	1	15	7326.15
Europe	91	Suplier Y	Product 00091A	A	121	67	9	97	44	24	14	25	1	61	35497.12

Statistical Model - January 2023 Analysis (contains 25 SKU's)

Location	Item No	Supplier	Description	ABC Classification	Inventory On Hand	Days of Cover	Forecasted Weekly Demand	Target Service Level	Safety Stock Req	Safety Stock cover (days)	Replenishment LT (Days)	LT Demand	Make / Plan Frequency	Calculated Target Stock Level	Target Inventory Value
Europe	1	Suplier Y	Product 00001B	A	204	146	7	95	140	100	56	78	1	183	66612
Europe	10	Suplier Y	Product 00001B	A	172	54	16	95	65	20	14	45	1	90	736558.75
Europe	101	Suplier Y	Product 00101D	A	4	0	0	90	0	0	14	0	1	0	0
Europe	102	Suplier Y	Product 00102C	A	2	0	0	90	0	0	14	0	1	0	0
Europe	103	Suplier Y	Product 00103D	A	4	0	0	90	0	0	14	0	1	0	0
Europe	105	Suplier Y	Product 00105D	A	3	0	0	90	0	0	14	0	1	0	0
Europe	106	Suplier Y	Product 00106D	A	3	0	0	90	0	0	14	0	1	0	0
Europe	107	Suplier Y	Product 00107D	A	2	0	0	90	0	0	14	0	1	0	0
Europe	108	Suplier Y	Product 00108D	A	2	0	0	90	0	0	14	0	1	0	0
Europe	109	Suplier Y	Product 00109D	A	1	0	0	90	0	0	14	0	1	0	0
Europe	111	Suplier Y	Product 00111D	A	1	0	0	90	0	0	14	0	1	0	0
Europe	115	Suplier Y	Product 00115D	A	3	0	0	90	0	0	14	0	1	0	0
Europe	12	Suplier Y	Product 00012D	A	24	60	2	95	23	58	14	6	1	0	0
Europe	122	Suplier Y	Product 00122D	A	3	0	0	90	0	0	14	0	1	0	0
Europe	147	Suplier Y	Product 00147D	A	1	0	0	90	0	0	49	0	1	0	0
Europe	16	Suplier Y	Product 00016C	A	27	135	1	90	9	45	14	3	1	11	85588.99
Europe	19	Suplier A	Product 00019D	A	68	113	3	90	14	23	14	8	1	0	0
Europe	281	Suplier Y	Product 00281C	A	72	45	8	90	29	18	14	22	1	44	11190.75
Europe	291	Suplier Y	Product 00291C	A	284	355	4	90	16	20	14	11	1	24	1449.36
Europe	301	Suplier Y	Product 00301C	A	895	746	6	90	27	22	14	17	1	36	1955.1
Europe	41	Suplier A	Product 00041D	A	36	180	1	90	3	15	14	3	1	0	0
Europe	51	Suplier A	Product 00051D	A	0	0	0	90	0	0	14	0	1	0	0
Europe	71	Suplier Y	Product 00071A	A	262	50	26	97	72	14	14	73	1	121	59813.93
Europe	81	Suplier Y	Product 00081B	A	79	132	3	95	9	15	14	8	1	15	7326.15
Europe	91	Suplier Y	Product 00091A	A	121	67	9	97	44	24	14	25	1	61	35497.12