DIABO

Support Documentation

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1 Material Page Structure

The Materials page summarises all the information about the materials in the system. The page consists of an **options bar** (where we find features such as filtering, the possibility of undoing editing steps and submitting changes to SAP) and a **table** listing the various Materials in the system.

Material Info					Supplier Delay Info	Safety Stock Info	Safety Time Info	Inventory						Edit
Material ⇅	Material Description ⇅	ABC Classification ⇅	Plant ⇅	MRP Controller ⇅	...	...	...	Service Level ⇅	Open SAP Md 04	Current Inventory Value ⇅	Delta Safety Stock ⇅	Delta Safety Time ⇅	Average Inventory Effect After Change ⇅	...
6720645487	IM RC200 2012/06 itttt	A	1760	mp04	...	...	...	0	↗	18568.28 (EUR)	820	1	15439.18 (EUR)	...
6720645497	IO RC100 2012/06 div	B	8640	mp05	...	...	...	0.8	↗	45453.64 (EUR)	377	-8	33651.3 (EUR)	...
6720648744	OPERATING INSTRUCTIONS; tbd (NL)	A	9440	mp06	...	...	...	0.5	↗	77621.87 (EUR)	-73	9	15397.94 (EUR)	...
6720648745	OPERATING INSTRUCTIONS; tbd (FR)	B	8150	mp07	...	...	...	0.4	↗	145158.44 (EUR)	-547	-6	-78126.92 (EUR)	...
6720648746	OPERATING INSTRUCTIONS; tbd (IT)	C	1760	mp08	...	...	...	0.3	↗	58410.2 (EUR)	232	-23	-10645.73 (EUR)	...
8600859841	DPI01263A;Nissan, Screen;438135	A	8640	mp09	...	...	...	0.9	↗	233387.4 (EUR)	-561	-8	-95339.4 (EUR)	...
8600861969	Linear bearings ;50.002.003-01	B	9440	mp10	...	...	...	0.6	↗	73776.18 (EUR)	616	8	64729.36 (EUR)	...
8600861970	Serrated belt wheel 21T5/15-0;20.110.121	C	8150	mp11	...	...	...	0.5	↗	49845.1 (EUR)	459	-9	-6535.98 (EUR)	...
8600861977	20.228.018;ROLL BENCH	A	1760	mp12	...	...	...	0.8	↗	50.04 (EUR)	833	8	1246.83 (EUR)	...
8600861980	20.110.013;WASHER	B	8640	mp13	...	...	...	0.8	↗	66011.7 (EUR)	174	24	151648.5 (EUR)	...

Showing 1 - 10 of 999 items.

`«« « 1 2 3 4 5 ... 100 » »»`

Figure 1: Material Page

1.1 Table Column Groups

As we can see from Figure 1, for better data comprehension and structuring, the columns are grouped in the following sets:

- **Material Info -** Basic information about the material.

- **Supplier Delay Info -** Information about the Supplier's delay.

- **Safety Stock Info -** Information about the Safety Stock, complete with current and proposed values.

- **Safety Time Info -** Information about the Safety Time, complete with current and proposed values.

- **Inventory -** Information related to a Material's inventory, namely its current monetary value;

- **Edit -** Columns with values changeable by the user, namely the Safety Stock and Safety Time values, as well as the possibility to create and edit commentaries.

These column groups are collapsible and expandable, to simplify the table's usage. The state of each group is switchable via the icon in the lower left corner of each column header of a group. When a user opens the page, the Material Info and Inventory groups will be expanded, as demonstrated in the screenshot above.

In the following screenshots, you can see an example of the expand and collapse icons and their effects on the column group.

Figure 2: Column Group Before Collapse   Figure 3: After Collapse

1.2   Table Columns

The usefulness of each column is explained in each header's hover, however, here is a review of each column:

- **Material -** The material number uniquely identifies a material in the SAP System.

- **Material Description -** A short text describing a material.

- **ABC Classification -** The ABC Classification is a frequently used analytical method to classify objects (Customers, Products, or Employees) based on a particular measure (Revenue or Profit).

- **Plant -** A plant is an operational facility within a company code.

- **MRP Controller -** The MRP controller is responsible for material requirements planning and material availability.

- **Average (Avg) Supplier Delay -** Average variation of the difference between the planned delivery date and the actual delivery date of the supplier for a specific material within the previous year.

- **Max Supplier Delay -** Maximum variation of the difference between the planned delivery date and the actual delivery date of the supplier for a specific material within the previous year.

- **Current SAP Safety Stock -** Current Safety Stock specified for a particular material

- **Proposed Safety Stock -** Proposed Safety Stock specified for a particular material

- **Current SAP Safety Time -** Current Safety Time specified for a particular material

- **Proposed Safety Time -** Proposed Safety Time specified for a particular material

- **Service Level -** Service levels determine the percentage of delivered goods from an order compared to the total order, aiming to meet demand and fulfill customer requirements.

- **Open SAP -** Link that redirects to the SAP page for the Material in question.

- **Current Inventory Value -** The monetary value of the current stock.

- **Delta Safety Stock -** Difference between proposed stock and current stock.

- **Delta Safety Time -** Difference between the proposed time and the actual time.

- **Average Inventory Effect After Change -** Monetary value calculated after changes to the edit columns.

- **New Safety Stock -** Editable Safety Stock value. The initial value will be equal to the default value, and after any edit, the value will be the edited value.

- **New Safety Time -** Editable Safety Time value. The initial value will be equal to the default value, and after any edit, the value will be the edited value.

- **Flag as Special Case -** Cell for classifying material as a special case. You can remove this classification or classify the material as a special case and set its expiry date.

- **Entries For Change in SAP -** Line selection cell for submission to SAP. It is only selectable if one or more pieces of data on the line itself have been modified (New Safety Stock, New Safety Time, Flag as Special Case).

- **Comment -** Editable comment on the Material.

2 Options Bar

The options bar is placed above the table and contains several functionalities that affect it. Therefore, this document recaps the several functionalities in the same order as they are presented in the system.

2.1 Filter Options

This option is a series of nested dropdowns, organized by column groups and, for each of them, the different columns in the group. Depending on the selected column, there will appear an input for a filter, like so:

- Text columns will have a text box input so that the user can filter the table with whatever text they input (Figure 4).
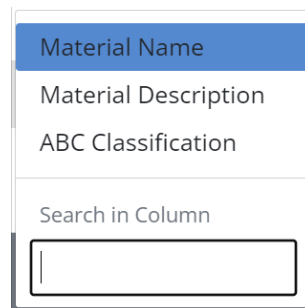
Figure 4: Filter Options - Text Input

- For numerical value columns, the input is divided into two different boxes so that the user can choose the filter operation and the value of said operation (Figure 5).
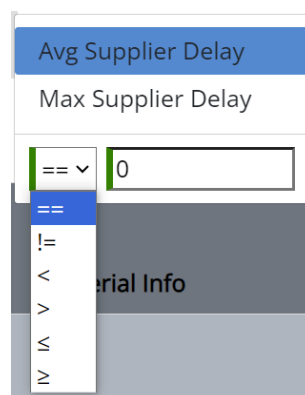

Figure 5: Filter Options - Number Input

- In the case of a column with categorical values, the user is presented with all available categories and can choose one or multiple options (Figure 6).
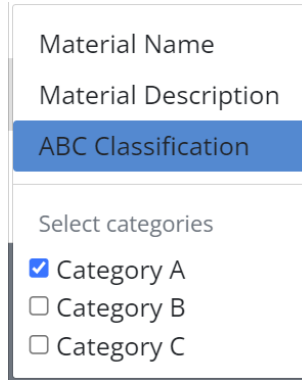
Figure 6: Filter Options - Category Selector

After a filter is added, it will appear in the interface so that the user can remove each filter individually or even reset all filters, as shown in Figure 7.

Figure 7: Active Filters

2.2 File Options

The File Options button activates a dropdown with the three following options:

- **Replace Data -** Submit a file that replaces all the data stored.

- **Add Data -** Submit a file that adds data to the data already stored

- **Download Data -** Download an Excel file with all the current data in the table.
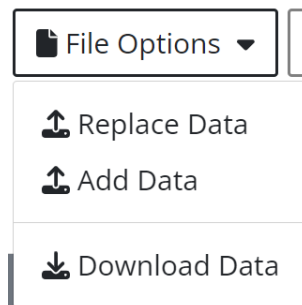

Figure 8: File Options

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2.3 Table Size

This dropdown menu has the goal of allowing the user to change the number of lines shown on each table page. The values allowed are 10 (default), 20, or 30 lines.
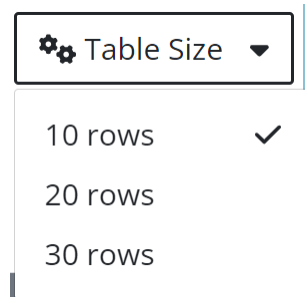
Figure 9: Table Size

2.4 Undo Feature

This component has 2 different purposes: allowing the user to undo a value they have edited but not submitted and allowing the user to set the number of reversible steps(changes) stored in a change history.

    If the user chooses to lower the size of the history, they will receive an alert, explaining that the older steps beyond the new limit will be lost. In case the user increments the number of steps, they will be alerted that no saved steps will be lost.
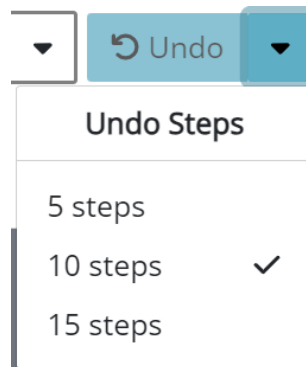
Figure 10: Undo Feature

2.5 Currency

The user can use a switch to toggle the currency in which the Average Inventory Effect After Change and Current Inventory Value values are displayed.
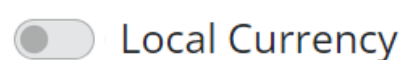
Figure 11: Currency: Euro

Figure 12: Local Currency

The values can be displayed in Local Currency, i.e., the currency associated with the material when it was entered into the database, or in euros. If the values are converted to euros, the user can check the original currency and the conversion rate via a tooltip when hovering the mouse over the cells in the columns mentioned above.

3 Value Editing and Changes Submission

As previously mentioned, the user can change different values associated with a certain material. The columns that can be edited are:

- New SAP Safety Time

- New SAP Safety Stock

- Comment

- Flag

3.1 Editing the values associated with a Material

To change a value, the user simply has to expand the column group "Edit" and click on the value they want to change. In the case of Safety Time and Safety Stock, the value that is currently in the cell can be one of the following:

- The same value as "Proposed Safety Time" or "Proposed Safety Stock", when no changes haven't been made in other sessions to the originally uploaded value.

- A value different than the "Proposed" ones, indicating that the initial value was changed in a previous session

After a value is edited, if the value is different from the value before the change, the cell will be marked in light blue and the text itself will be dark blue until the change is submitted.

3.1.1 Warning Tooltips

For the user to be aware of large variations in the edited values, and to draw attention to potential input errors by the user, the tool has a system in place that warns the user via tooltips in case there are big variations (both negative and positive) in the edits. Below you can check an example of one of these messages.

It's worth noting that these tooltips are merely a warning, and the changes can still be submitted. Therefore, it's the user's responsibility to act on those warnings or ignore them if the edits are as intended.

Figure 13: Warning Tooltip Example

3.2   Changing the status of Special Cases

Each active special case has a deadline/expiration date defined by the user that created it. After this deadline expires, that special case is automatically removed by the system. Alternatively, the user has the option of classifying or declassifying a certain material as a special case. This task can be completed in 2 different ways:

- **Via the "Materials Page":** The user can press the flag icon of a given line, prompting a PopUp to open. That PopUp allows the user to switch the state of that Material between Flagged and Not Flagged. If the Material is marked as Flagged, the user must add an expiration date/deadline to the Special Case i.e. the length of time the Material is marked as a Special Case.
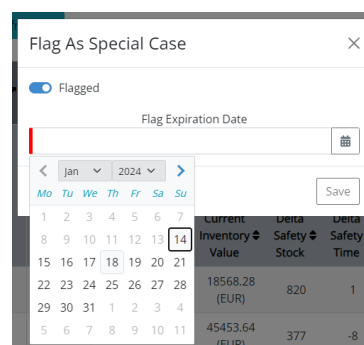

Figure 14: Flag Pop Up

- **Via the "Special Cases" page:** The user may check what Materials are currently marked as Special Cases via the dedicated page. On that page, it's possible to edit the current status of a material, in a menu accessible by pressing the pencil icon. If the user alters the state of a material to Not Flagged, they will be warned that the change means that the material will be deleted in the Special Cases table. The user can also alter the deadline/expiration date of the Special Case in that same editing menu.

Figure 15: Special Case Edit Page

3.3   Submit to SAP

The option to subit the changes becomes available once any edited row is selected. In turn, rows become selectable when any change is made in the "Edit" column group.

To submit any changes, simply select 1 or more lines and press the button shown bellow:

After the click, if the user has edited any lines that are not marked, they are offered the possibility of reviewing the unselected lines or the option of submitting only the marked ones and losing the changes.

If the user chooses to proceed, a download of an Excel file with all the edits will be automatically triggered. That file has a format similar to that of the files used to upload data to the table.

Finally, the user is redirected to a page summarizing the changes. On this page, you can see which lines have been changed and how (from old to new values). In the case of numerical values, the percentage change between the old and new values is shown.

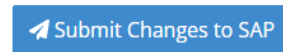Figure 16: Inactive Submit Button
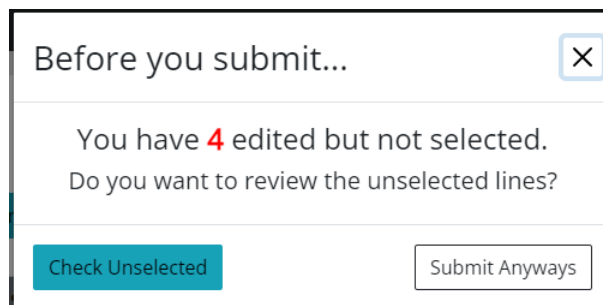

Figure 17: Active Submit Button

Figure 18: Verification Pop Up

4 User Types

To control access and restrict certain actions, two types of users have been developed: normal users and admins. These two types differ only in the level of authorization in the system, particularly when uploading files. So, as far as the **normal user** is concerned, he can:

- submit changes to SAP, modifying values in the tables relating to the Edit group
- filter table data
- perform the undo action
- download the information in the table (Figure 19)

In the case of the **admin**, in addition to all the actions of a normal user, they are authorized to add or replace data in the table, i.e. upload replacement files (Figure 20).
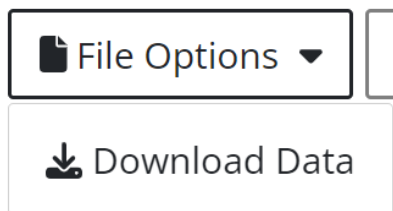
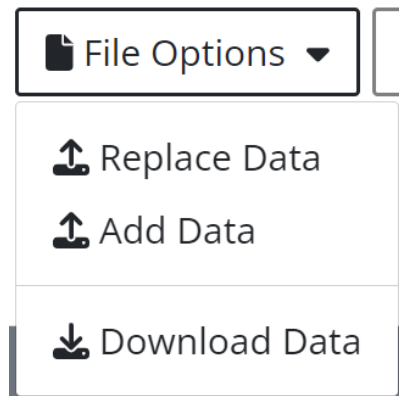Figure 19: File Options (Normal User)

Figure 20: File Options (Admin)

5   Review Changes Page

As previously mentioned in the section dedicated to Value Editing and Changes Submission, the Review Changes Page is shown to the user after they submit change to the database.

The page has a layout similar to that of the Materials page, with the key difference being that the values are not editable and not all of the columns in the Materials page are shown in this page.

In this page, the user can review how all the values were (or not) edited, with the capability of also checking the percentage difference between old and new values, in the numerical columns. In the case of the special cases, the user can check which materials were declassified or classified as special cases.

This page is accessible only once, after the changes are sent. After leaving the page, the user cannot access it again, but a file with all the changes made will have, by that point, been downloaded to the user's computer.

Below you can check an example of the Review Changes Page:

Material	Material Description	ABC Classification	Plant	MRP Controller	New SAP Safety Stock			New SAP Safety Time			Flag			Comment	
6720645487	IM RC200 2012/06 itttt	A	1760	mp04	964	964	-	13	20	↑ 54%	⚑	→	⚑	hello	shipping costs may cha...
6720645497	IO RC100 2012/06 div	B	8640	mp05	739	760	↑ 3%	18	25	↑ 39%	⚑	→	⚑		
6720648744	OPERATING INSTRUCTIONS; tbd (NL)	A	9440	mp06	680	680	-	30	50	↑ 67%	⚑	→	⚑		
6720648745	OPERATING INSTRUCTIONS; tbd (FR)	B	8150	mp07	86	86	-	10	10	-	⚑	→	⚑		

Figure 21: Review Changes Table