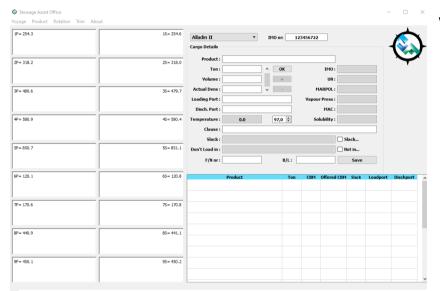
Start the application by clicking the icon *Stowage Assist Office* on your desktop or by double clicking the *Stowage Assist Office.exe* in the directory. The application will open with the following screen (see *figure 1*):

On the top right there is a choose box. This box must be used to select the correct ship and it's corresponding data. The Main Window will be updated accordingly.

### Note

As check-up the IMO no. line will change to the correct IMO no. of that ship. If this is not corresponding with each other the collected data is wrong.



This dialog is the main window of the program.

Figure 1

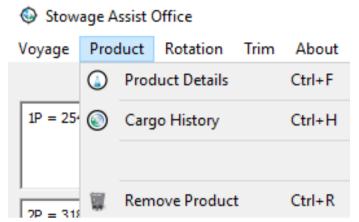
In this dialog window you will find the following widgets:

- All cargo tanks inserted in the 'Combinations' are stated as clickable items on the left side, carrying their Name and 100% Volume.
- On the right side of the dialog window, there is a Table which will contain the values of Ton, Volume, Available Volume and Slack Volume of the product what will be stowed.
- On the right side from the top to the Table there are fields which show the gathered information regarding the product that is to be stowed. This information is collected on a child window, titled <u>Products</u>, of this dialog window.
- On the top side of the dialog window there is a menu bar. From here, all child windows can be opened.

From here you can start to stow products.

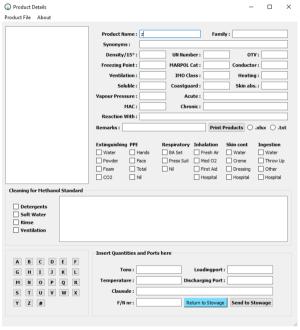
### **Products**

By clicking on the menu bar action button, a 'Product Details sub menu will open as shown in *figure* 2.



This picture shows the sub menus. The first to open is the 'Product' menu. This will open the Dialog Product Details as shown in *figure 3*. The submenus 'Cargo History' will be explained on page 7. 'Remove Product' will be explained on page 4.

Figure 2



On the top left side, there is a dialog window with a list widget that will normally be empty. On the upper right side, there are input fields for the physical and natural values of a product.

On the right centre there are print statements. The tick boxes can be used to acknowledge that safety-related data has been retrieved from the data sheet of the corresponding product.

On the lower right side, there are a group of input fields, titled 'Insert Quantities and Ports here'.

This will be explained further on the next page.

Back on the lower left side, there are alphabetical tool buttons. Use these tool buttons to search the cargo database for products.

Figure 3

The first step is to insert all known physical data of a product. This can be taken from the datasheet of that product. The minimum to be inserted is the 'Product Name' and 'Density / 15'°. Again, all values must have a period ('.') before the decimal.

When all data has been collected and inserted, save the new product in the database by using the submenu from the menu bar on the top left 'Product File', as shown in *figure 4*.

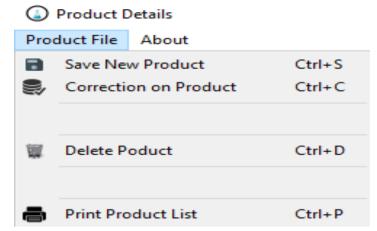


Figure 4

Now choose 'Save New Product'. The data will be stored alphabetical in the database.

If written corrections are made to an existing 'Product', this will be corrected in the other submenu 'Correction on Product' as well. A 'Product' can also be 'Deleted' from the database.

To 'Delete' or 'Correct' a 'Product', confirm 'Yes' in the pop-up window. If not acknowledged with a 'Yes', one will return to this Dialog.

The 'Print Product List' function will be explained on page 28.

Now that there is a physical copy of the 'Product', one can use the 'Insert Quantities and Ports here' to create the data known for the upcoming voyage. Insert the loaded **Tons** to be carried according to the Voyage Instruction for that product, together with the **Clause**, **Fixture Note**, **Load Port**, **Discharging Port** and **Temperature**.

### Note

- Examples for the clauses can be:
  - Heating;
  - o N2;
  - Wall wash;
  - o Etcetera.
- For temperature, use degrees °C.

When all data has been inserted for the upcoming Voyage concerning that product, send this data to the Main Dialog Window by choosing 'Send to Stowage'.

## Note

➤ This must be repeated for all products to be carried for that upcoming voyage.

#### Note

- ➤ If a product already exists in the database, simply press the alphabetical tool button on the left, and look for the first letter of the product. The database will now be searched for all products in the database starting with this letter. All found results will be shown in the list widget on the upper left. By clicking the correct name, the rest of the physical data will be shown to the right side again.
- > Every carried product must have their data inserted into 'Insert Quantities and Ports here'.

Use 'Return to Stowage' to leave this dialog window and to return to the Main Dialog Window as shown in figure 2.

Using the 'Print button' on the right side, centre and the Print sub menu, will print all existing cargoes in Excel or in Notepad (ASCII table), depending on whether the radio button '.xlsx' or '.txt' is ticked. This Excel file can be stored on the working partition of your Local or Network system.

An Excel example is shown in *figure 5.*.

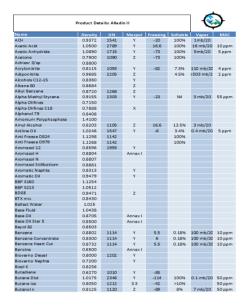


Figure 5

In the example, two products have been loaded into the Ship, knowing Acetic Acid and Benzene, see *figure 6.* 

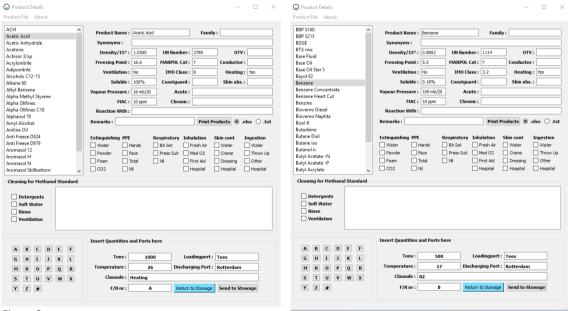


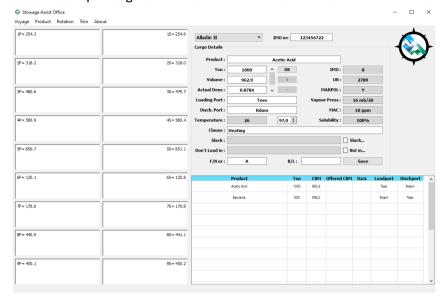
Figure 6

Back at the main Dialog they will be shown as per *figure 7*.

When a wrong product is sent to stowage, you can remove this product by using the submenu 'Remove Product in the 'Products'-menu of the main window (see *figure 2*).

### **Manual Stowing**

The first step is to give full Focus on the Table. Click on the first and second row of the Table. The



products will appear without colour. Above the table, the physical data and voyage data will now also appear. By clicking the Name of the carried product in the Table, you select the product whose data will be shown on the top right side.

The next step is to start stowing the products. For example, if Acetic Acid is selected and we start clicking on the Cargo Tanks, on the left side. Let us assume 1P. The Table row of Acetic acid

Figure 7

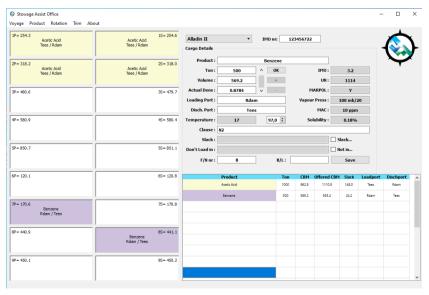
will now show the total Tons to be carried, the Total Volume to be carried, the Available Volume (given by 1P) and the Slack Volume (if applicable, else this will be 0). The Acetic Acid will also be assigned its own colour, to help make a visual difference between multiple products.

Continue selecting tanks by clicking them for Acetic Acid until a slack volume is reached. Then the Available Volume, from the grouped loaded tanks, is bigger than the Total Volume needed.

To deselect a cargo tank for that product, click on this particular cargo tank again and all values involved in the Table will be adjusted.

#### Note

In the centre of this Main Dialog Window is one numerical spin box. At this moment it is stated 97. This stands for maximum filling of the Cargo Tanks. When brought into focus by tab order or mouse click, the filling percentage in the desired filling can be adjusted. All stowage fillings will be calculated against this value.



As per example, the Acetic Acid has been loaded into 1P/S and 2P/S and the Benzene into 7P/8S, *figure 8*.

The Benzene can be stowed when it is selected in the Table.

The Table has now for both products Slack Volume so that they fit into the selected tanks for loading.

Figure 8

Inside each selected cargo tank, the name of the carried product and the load / discharge port name will be shown. This allows you to go even further.

On the right side of the dialog window, you will find a check box called 'Slack'. When, per example, Acetic Acid is selected in the table, tick this box. You can now decide which tank for Acetic Acid will be slack. This selected tank will have the 'Slack' printed also on the bottom of this tank and its name will be printed into the slack line. This is shown in *figure 9*.

Beneath the 'Slack' checkbox there is a 'Don't' checkbox. When, per example, the Acetic is not allowed to be carried in the 3P/S cargo Tanks, tick this box. You now can click on these cargo tanks and their name will be printed in the 'Don't load in line'. This means when you start stowing again and both 'Slack' and 'Don't' checkboxes are unticked, you can click on the 3P/S, only they won't be selected for Acetic Acid. See *figure 1*.

#### Note

During stowing, selecting cargo tanks manual. Both 'Slack' and 'Don't' check boxes must be unticked

Basically, this is <u>manual stowing</u> with the Stowage Assist. In theory you can now stow as many cargoes as there are in numbers of cargo tanks.

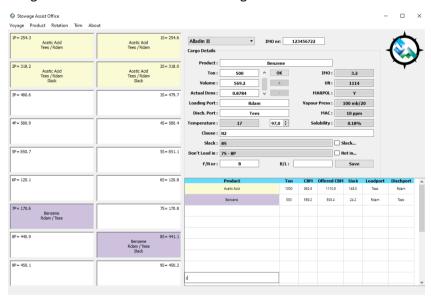


Figure 9

# Semi-Automatic Stowing

Thanks to the program 'Combinations', instructions can be given so that the program selects the cargo tanks semi-automatically. On the right side there are tree buttons stating 'OK', '+' and '-'. When a product is selected in the Table, press 'OK'. The tree buttons will now change to a bright blue colour and the clickable cargo tanks to the left will become disabled (see *figure 10*). This means that the program is connected to the 'Combinations' database.

By starting with the '+' search, the program will look into the database and search for the first group or single tank, which has the minimum 'Slack' space possible. When this is a not desirable group or single tank, press 'Search' again until a desirable selected group or single tank is found.

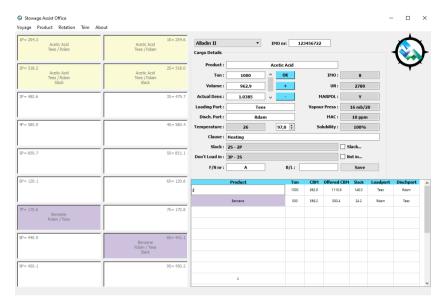


Figure 10

Use '-' to go backwards to the smallest combination or single tank. The value stated in the filling percentage, has been calculated. The Table will also be updated after every time '+' or '-' is used. When the desired result is reached, press 'OK' again and the tree buttons will deselect and return to their original colours. The cargo tanks on the left will be enabled again.

When the program reaches the end of the search possibilities '+' or '-', the

connection will be closed, and the tree buttons will also deselect and the cargo tanks to the left will be enabled again. This will be clarified with a beep sound.

#### Note

> Stowing in the semi-automatic mode can be done as long as there are unselected cargo tanks and the 'Volume Needed' is smaller than the 'Volume Available'.

When a wrong product is loaded into the Main Dialog Window, this can simple be overcome by the submenu 'Delete Cargo', shown in *figure 19*. Select the product you wish to delete in the Table and then press the submenu 'Delete Cargo'. Confirm 'Yes' in the pop-up window, to delete this product from the Table. Press 'No' to keep the product.

All white fields on the right side of the Main Dialog Window can be changed by the user. After pressing the 'Save' button, they will become implemented for that product, which has been selected in the table. When the 'Actual Density' and the 'Ton' fields are changed, the product needs to be restowed, as written above.

# History

If the stowage was completed and the voyage has been performed according to the stowage logs, you can add this voyage to the 'History'. This is also the place to retrieve the last cargoes for each cargo tank on board.

By doing so select the menu 'Products' on the submenu 'Cargo History' (*figure 3*). The following Dialog sequence will be shown as per *figure 11*.

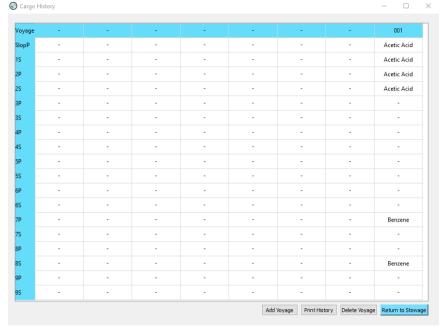


Figure 11

This Dialog Window will show the last cargoes carried. There are four push buttons with their stated actions: 'Add Cargo', 'Print Cargo', 'Delete Cargo' and 'Return to Stowage'.

Use 'Return to Stowage' to return to the Main Dialog Window without any further actions.

Use 'Add Cargo' to add the selected voyage in the Main Dialog Window to the History Database. All voyages will move one column to the left and the

last voyage is seen in the column the furthest to the right. Confirm 'Yes' in the Message Window, to run this action. Use 'No' to return to this Dialog Window.

Use 'Delete Cargo' to delete the last entry from the History database. All voyages will move one column to the right in the table. Confirm 'Yes' in the Message Window, to run this action. Use 'No' to return to this Dialog Window.

Use 'Print History' to create an Excel sheet, which shows an overview of the last voyages and last cargoes carried as per *figure 12*. This Excel file can be stored on the working partition of your Local or Network system.

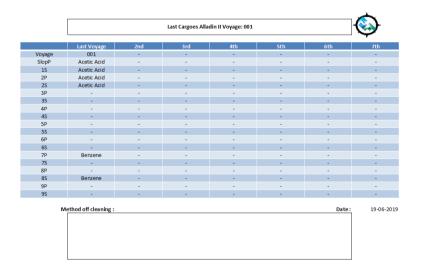
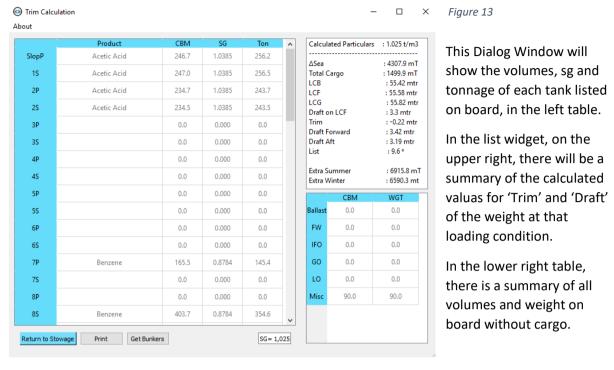


Figure 12

This print can go back to 50 voyages.

## Trim and draft

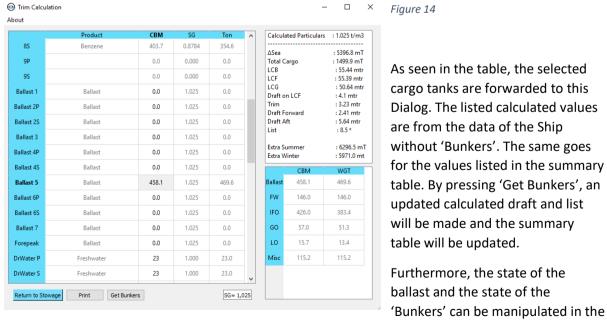
Use the menu bar action button 'Trim' and its submenu action button 'Draft Calculations' to open the 'Dialog Trim Calculation', as shown in *figure 13*.



There are tree buttons in this dialog: 'Return to Stowage', 'Print' and 'Get Bunkers'.

Use 'Return to Stowage' to go back to the Main Dialog Window without any further actions.

Use 'Get Bunkers' to load the last entry of the values of volumes and weights on board (besides the ballast and the cargo tanks) from the Bunkers database. Confirm 'Yes' in the Message Window, to run this action. Use 'No' to return to this Dialog Window.



left table as shown in figure 14. The Volumes in the column CBM of these tanks are enabled. All the

rest are disabled. Double-click these volumes to set them to maximum Volume. Single-click to empty them again.

**NB:** the numerical keys can be used here. When a value has been manipulated, use arrow up ( $\uparrow$ ) or arrow down ( $\downarrow$ ) to adjust.

Use 'Print' to create an Excel sheet with a summary of the Volumes, sg and Ton of all tanks on board, (see *figure 15.*).

# Warning:

This application cannot be used for checking the stability criteria. It only calculates the drafts, trim of that loading condition. The list is calculated against a fixed GM of 1.0 meter.

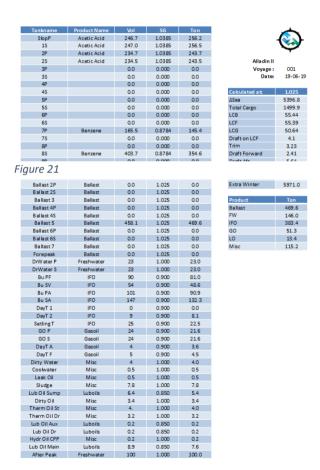


Figure 15

# File New, Load, Save

Use 'Voyage' to open another submenu. See *figure 16* for the details of this submenu.



This submenu contains 'New Voyage', 'Loading Voyage', 'Saving Voyage', 'Delete Voyage', 'Print Voyage' and 'End'.

Use 'New Voyage' to clear all the content on the Main Dialog Window. From there, create new data or products.

Use 'Load Voyage'' to reload stored voyages into the Main Dialog Window. The stored voyages will be stored in the directory '...'/HRN/Stowage Assist/Data/\*/' with extension .stw.

Use 'Save Voyage' to save voyages in the directory '...'/HRN/Stowage Assist/Data/\*/' with extension .stw.

Use 'Delete Voyage' to delete voyages saved in the directory '...:/HRN/Stowage Assist/Data/\*/' with the extension .stw.

• \* = The name of the ship where it is installed and saved. This folder is for office use.

For all the actions above: Confirm 'Yes' in the Message Window, to run this action. Use 'No' to return to this Dialog Window.

### Rotation

In the menu bar, use 'Rotation' to open a submenu action button 'Ports of Call'. By pressing this button, the following dialog will show, see *figure 17*.



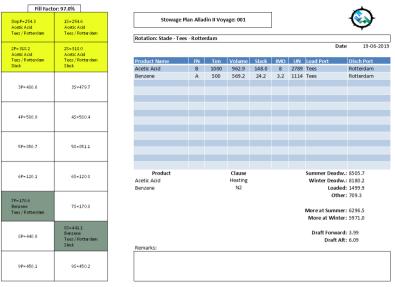
Figure 17

In this dialog window you can fill in the port rotation for that voyage.

Save the inserted ports by pressing 'OK' button. The dialog window will close.

### Stowage plan

Use 'Print Voyage' to create a Stowage plan in Excel for the voyage that is currently shown in the Main Dialog Window (see *figure 18.*). A pop-up window will inquire about the 'Trim' and list 'Calculation'.



This Excel file can be stored on the working partition of your Local or Network system.

Figure 18

# Note

- ➤ If a voyage is unsaved, a stowage plan without voyage number is created.
- > If the rotation is left blank, an empty rotation will print.