Tecnitas

"Energy Efficiency Operational Indicator Calculator" v 2.0
(EEOI Calculator)

Software

By Tecnitas Piraeus

User Manual

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1. Introduction

This document is the "User's Manual" for the software titled "ENEGY EFFICIENCY OPERATIONAL MANUAL (EEOI) in its version 2.0 state, hereinafter called "the software" which is developed by Tecnitas Piraeus. The purpose of this document is to describe in detail the purpose for which the software has been developed, the use for which it has been designed, as well as its operational and functional limitations.

2. Short General Description

The software is designed to run on PCs under Microsoft operating systems. It is designed to suit a large range of vessel types such as cargo, tanker, car carriers etc.

The software is designed to allow the user to record and monitor the Energy Efficiency Operational Indicator (EEOI).

The user can create voyage records of a specifically defined SEEMP cycle. These SEEMP cycles can be stored into separate data files or can be exported to Excel for further processing.

For each SEEMP cycle the EEOI of each voyage (EEOI.Voy) is calculated based on input values, also the EEOI rolling average (EEOI.R.Av.) is calculated based on the enabled voyages. Both of the above values are presented in tabular and graphical format.

3. Installation

- Unzip the contents of the downloaded zip file into a temporary folder.

- Run "Setup.exe"

- Press "Next"

- Select Installation folder and then Press "Next"

- Press "Next"

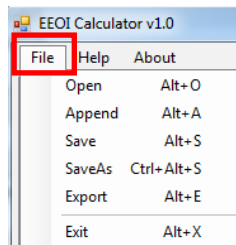- Wait until Installation is completed and then press "Close"

- The following "Shortcut" has been placed inside host programs.
  EEOI Calculator – v2.0: Application Shortcut.

"dotNetFx461_Client_x86_x64.exe" required for this application can be found inside the setup folder under the subfolder "DotNetFX461Client", in case it is not installed on the installation computer.

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4.   Menu description.

4.1 File menu

Open
Open a previously saved SEEMP cycle file stored in the computers storage units under the extension dat.

Shortcut "Alt+O" can be used at any time to access this operation.

Append
Append a previously saved SEEMP cycle file.
Append data from a previous SEEMP cycle file in to the current SEEMP cycle.
This operation may be useful when user wants to combine multiple SEEMP cycles for further analysis.

Shortcut "Alt+A" can be used at any time to access this operation.

Save
Save an already opened SEEMP cycle under the current file name at the current location on disc.

Shortcut "Alt+S" can be used at any time to access this operation.

Save As
Save a SEEMP cycle under a filename input by the user at a selected location on disc.

Shortcut "Ctrl+Alt+S" can be used at any time to access this operation.

Export
Export a summary of the input and output data of the current voyage into excel file. The excel file is named "Report_for_Print.xls" and it is stored in C:\EEOI_Data\ directory.

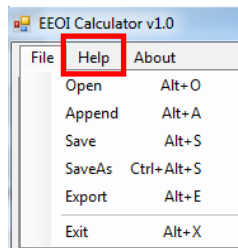Shortcut "Alt+E" can be used at any time to access this operation.
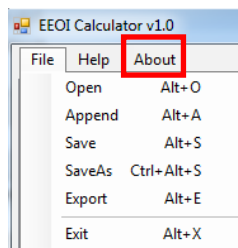
Exit

Exit the software.

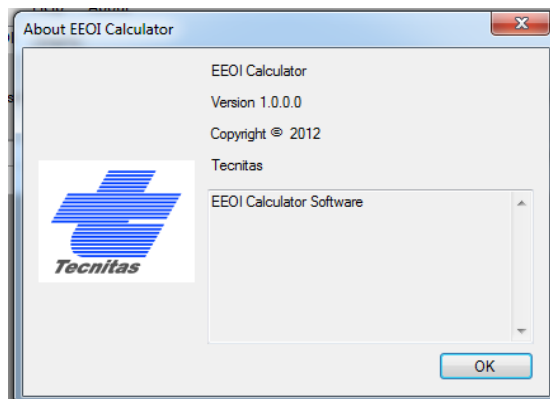Shortcut "Alt+X" can be used at any time to access this operation.

4.2 Help menu

Using this menu item the current help file is created inside the C:\EEOI_Data\ directory, in PDF format and displayed on the screen.
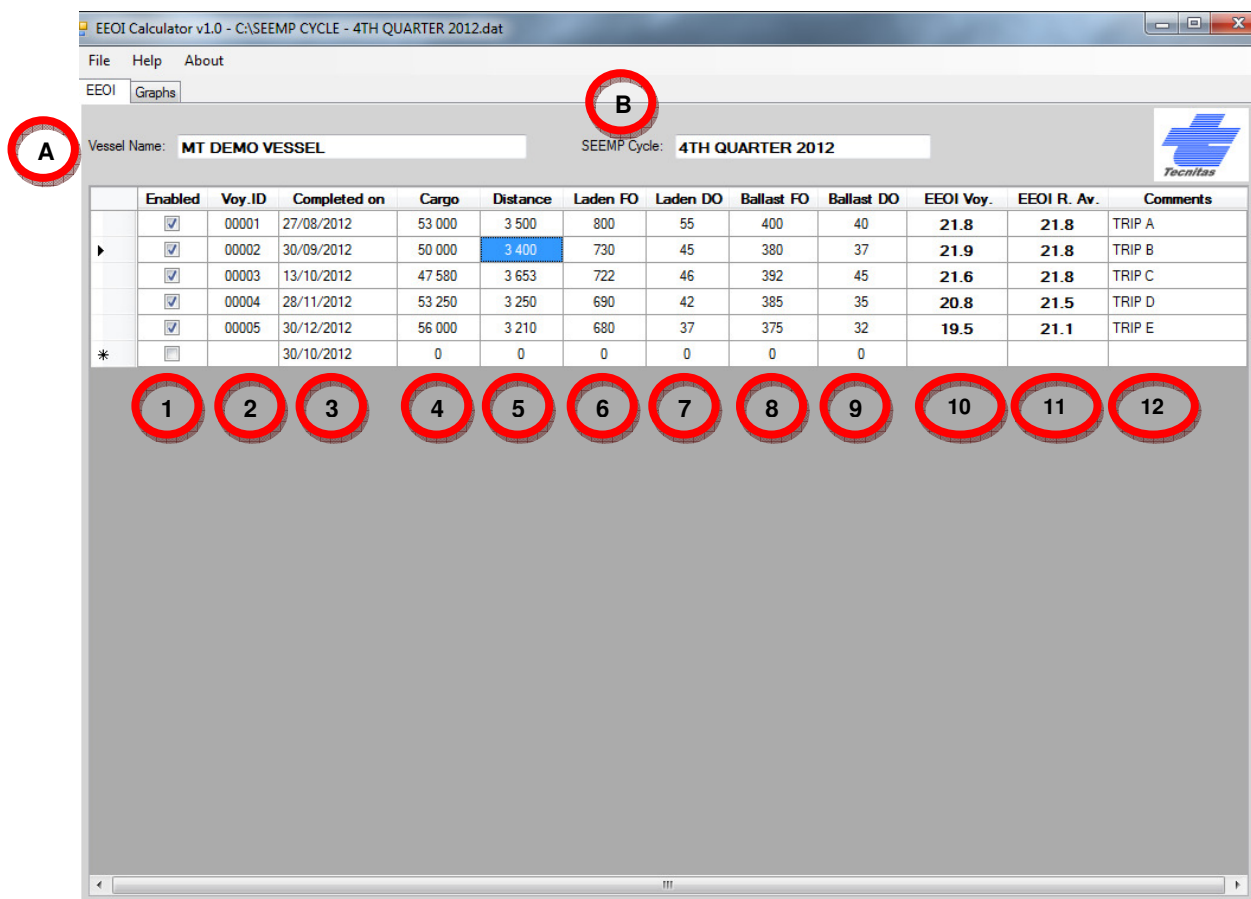
4.3 About

About

Using this menu item the "About" form of the application is displayed.

5.   EEOI Calculation Tab.

5.1 EEOI Calculation tab Description

The whole calculation process is performed under the EEOI tab.

Field A: *Vessel name*
Information about vessel name **"," character is not allowed**

Field B: *SEEMP Cycle*
Short description of the SEEMP cycle **"," character is not allowed**

Column 1: *Enabled/Disabled*
Enables or Disables a voyage. For a disabled voyage the current row on the above table becomes red and the data for this voyage does not affect the value of the EEOI rolling average, also the disabled voyage is not shown on the graphs and is not exported to the excel file.

Column 2: *Voy. ID*
Voyage ID, based on user's method to identify voyages **"," character is not allowed**

Column 3: *Completed on*
Date of completion of a voyage.
Dates can be enter directly by keyboard or by using the date picker function by double click on a specific cell of this column.

Enabled	Voy.ID	Completed on	Cargo	Distance	Laden FO	Laden DO	Ballast FO	Ballast DO	EEOI Voy.	EEOI R. Av.	Comments
☑	00001	27/08/2012	53 000	3 500	800	55	400	40	21.8	21.8	TRIP A
☑	00002	30/09/2012	50 000	3 400	730	45	380	37	21.9	21.8	TRIP B
☑	00003	13/10/2012	47 580	3 653	722	46	392	45	21.6	21.8	TRIP C
☑	00004				690	42	385	35	20.8	21.5	TRIP D
☑	00005				680	37	375	32	19.5	21.1	TRIP E
☐					0	0	0	0			

Date picker overlay (Οκτώβριος 2012):

Δευ	Τρι	Τετ	Πεμ	Παρ	Σαβ	Κυρ
24	25	26	27	28	29	30
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

Today: 30/10/2012

Column 4: *Cargo*
Cargo mass in **tons** carried on the voyage. Integer value is required.

Column 5: *Distance*
Distance of voyage in **nautical miles**. Integer value is required.

Column 6: *Laden FO*
Laden leg fuel oil consumption in **tons**. Integer value is required.

Column 7: *Laden DO*
Laden leg diesel oil consumption in **tons**. Integer value is required.

Column 8: *Ballast FO*
Fuel oil consumption during corresponding ballast leg in **tons**. Integer value is required.

Column 9: *Ballast DO*
Diesel oil consumption during corresponding ballast leg in **tons**. Integer value is required.

Column 10: *EEOI Voy.*
Energy Efficiency Operational Indicator (EEOI) of voyage expressed in
[gr CO2 / ton cargo x mile]

Column 11: *EEOI R.Av.*
Energy Efficiency Operational Indicator (EEOI) rolling average expressed in
[gr CO2 / ton cargo x mile]

Column 12: *Comments*
Comments on the specific voyage **"," character is not allowed**

5.2 Insert New Voyage

Enabled	Voy.ID	Completed on	Cargo	Distance	Laden FO	Laden DO	Ballast FO	Ballast DO	EEOI Voy.	EEOI R. Av.	Comments
✓	00001	27/08/2012	53 000	3 500	800	55	400	40	21.8	21.8	TRIP A
✓	00002	30/09/2012	50 000	3 400	730	45	380	37	21.9	21.8	TRIP B
✓	00003	13/10/2012	47 580	3 653	722	46	392	45	21.6	21.8	TRIP C
✓	00004	28/11/2012	53 250	3 250	690	42	385	35	20.8	21.5	TRIP D
✓	00005	30/12/2012	56 000	3 210	680	37	375	32	19.5	21.1	TRIP E
☐		30/10/2012	0	0	0	0	0	0			

To insert a new voyage enter values on any cell of the last row. The new row is enterd automatically at the bottom of the table.

5.3 Delete a Voyage

Enabled	Voy.ID	Completed on	Cargo	Distance	Laden FO	Laden DO	Ballast FO	Ballast DO	EEOI Voy.	EEOI R. Av.	Comments
✓	00001	27/08/2012	53 000	3 500	800	55	400	40	21.8	21.8	TRIP A
✓	00002	30/09/2012	50 000	3 400	730	45	380	37	21.9	21.8	TRIP B
✓	00003	13/10/2012	47 580	3 653	722	46	392	45	21.6	21.8	TRIP C
✓	00004	28/11/2012	53 250	3 250	690	42	385	35	20.8	21.5	TRIP D
✓	00005	30/12/2012	56 000	3 210	680	37	375	32	19.5	21.1	TRIP E
☐		30/10/2012	0	0	0	0	0	0			

To delete a voyage select the entire row by clicking on the arrow at the left side of the table and press "Del" button on the keyboard.
Notice that this operation can not be undone so caution is required.

5.4 Copy-Paste-Edit-Select All

Copy and paste is allowed only at the cell editing level and is accessible by shortcuts
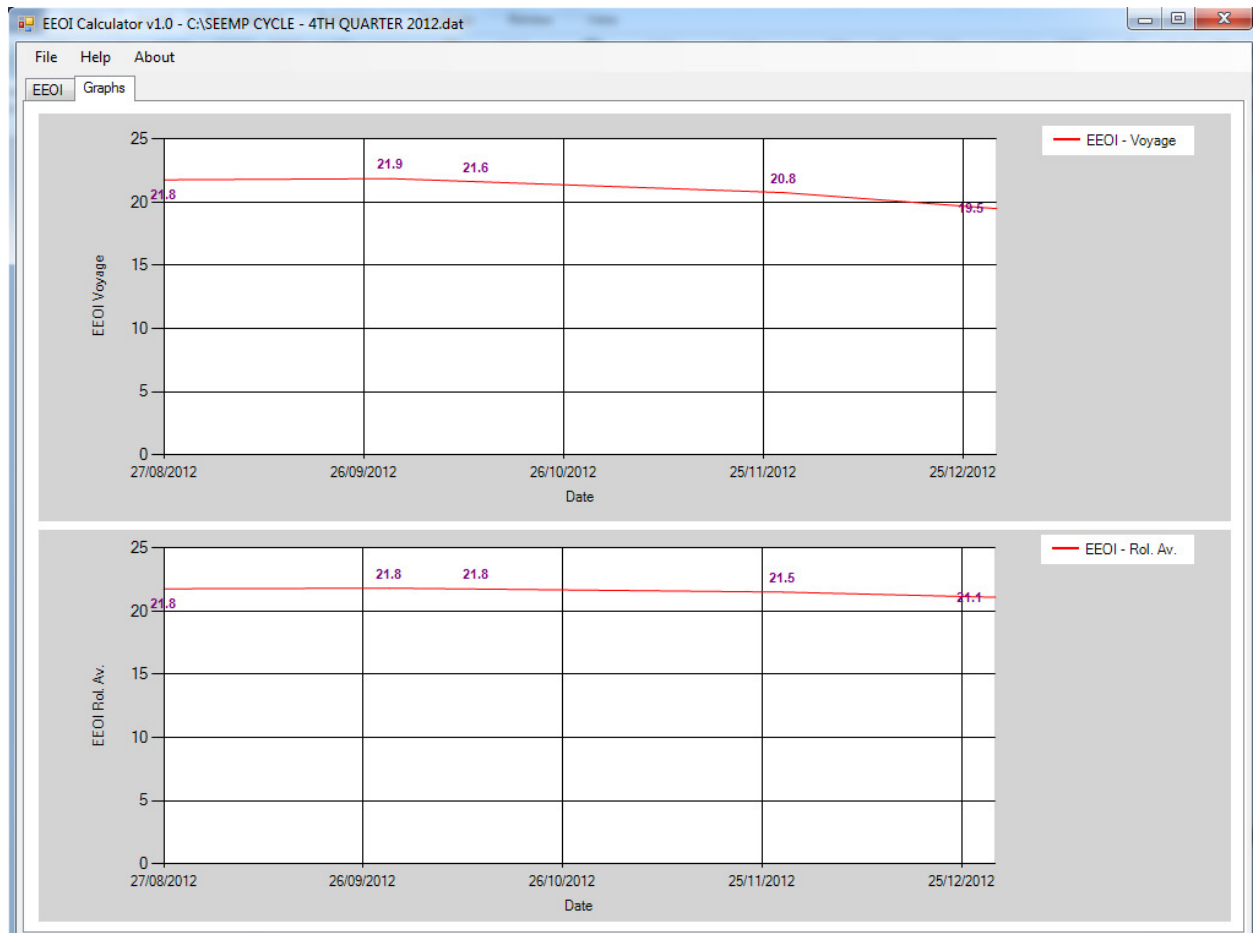Ctrl+C = Copy
Ctrl+V = Paste

To enter the edit mode just press F2 on any cell.

"Select All" is performed by clicking on the top left border corner of the table, copy to clipboard operation is allowed.

6. Graph Tab

The graphs of the EEOI Voy and EEOI R.Av are shown on this tab.

7. Limitations

The following are known limitations of the software at its current version:

- "," Character is not allowed at any field of this software
- In demo version there is a limit of 9 voyage entries.
- Be sure to have the following settings on "Regional Settings" panel
  Period "." for decimal point
  "Space" for Digit grouping