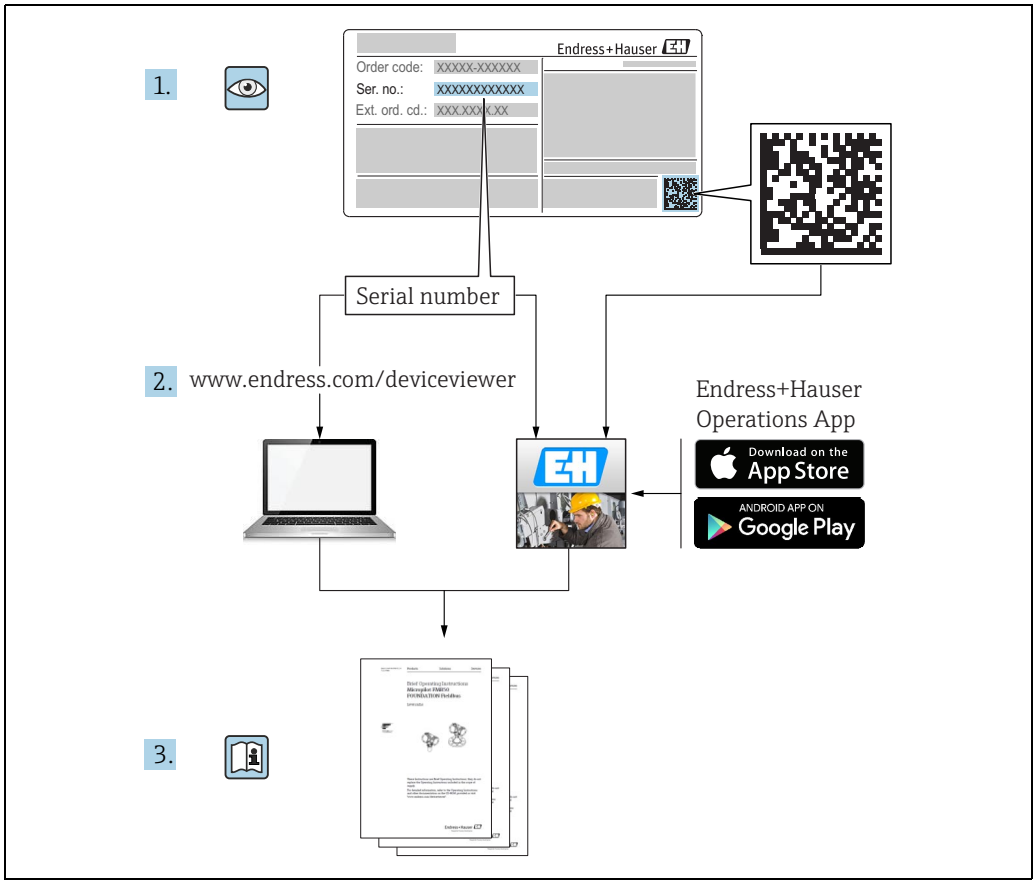
BA00394G/00/EN/16.17
71377895

Valid as of software version:
18.1.1

Operating Instructions
Tankvision Professional NXA85
Movements System Configuration

Endress+Hauser
People for Process Automation


1.
Endress+Hauser
Order code: XXXXX-XXXXXX
Ser. no.: XXXXXXXXXXXX
Ext. ord. cd.: XXX.XXX-X.XX
Serial number
2. www.endress.com/deviceviewer
Endress+Hauser
Operations App
Download on the App Store
ANDROID APP ON Google Play
3.
A0023555

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1 Document information

1.1 Target audience for this manual

This manual should support during the configuration of Tankvision Professional NXA85. It deals with the setup of the Movements package.
It is recommended to receive a training on the system by Endress+Hauser.

1.2 Version history

Document version	Valid for SW version	Changes to the previous version
BA00394G/00/EN/13.10	18.0.0	Initial version
BA00394G/00/EN/14.14	18.0.2 and 18.0.3	New layout; Enhanced Product, Tank and Movement functionality
BA00393G/00/EN/15.16	18.0.2 and 18.0.3	New features
BA00393G/00/EN/16.17	18.1.1	Unification of the W&M and the non W&M software packages.

Due to the certification process with weights and measures agencies, the latest software version might only be certified at a later stage. Also some features might be incompatible with the weights and measure regulations and can therefore not be combined.

1.3 Document function

1.3.1 Used symbols

Safety symbols

Symbol	Meaning
DANGER A0011189-EN	**DANGER!** This symbol alerts you to a dangerous situation. Failure to avoid this situation will result in serious or fatal injury.
WARNING A0011190-EN	**WARNING!** This symbol alerts you to a dangerous situation. Failure to avoid this situation can result in serious or fatal injury.
CAUTION A0011191-EN	**CAUTION!** This symbol alerts you to a dangerous situation. Failure to avoid this situation can result in minor or medium injury.
NOTICE A0011192-EN	**NOTICE!** This symbol contains information on procedures and other facts which do not result in personal injury.

Electrical symbols

Symbol	Meaning
A0011197	**Direct current** A terminal to which DC voltage is applied or through which direct current flows.

A0011198	**Alternating current** A terminal to which alternating voltage is applied or through which alternating current flows.
A0011200	**Ground connection** A grounded terminal which, as far as the operator is concerned, is grounded via a grounding system.
A0011199	**Protective ground connection** A terminal which must be connected to ground prior to establishing any other connections.

Symbols for certain types of information

Symbol	Meaning
A0011193	**Tip** Indicates additional information.
A0011195	**Reference to page** Refers to the corresponding page number.
1. , 2. , 3. ...	Series of steps
A0018373	Result of a sequence of actions

Symbols in graphics

Symbol	Meaning
1, 2, 3 ...	Item numbers
1. , 2. , 3. ...	Series of steps
A, **B**, **C** ...	Views
A0011187	**Hazardous area** Indicates a hazardous area.
A0011188	**Indicates a non-hazardous location** Safe area (non-hazardous area)

1.4 Documentation

1.4.1 Operating instructions

Document number	Instrument	Type of Document
BA00390G/00	Tankvision Professional	System Configuration
BA00391G/00	Tankvision Professional	Data Communications Controller
BA00392G/00	Tankvision Professional	Installation
BA00393G/00	Tankvision Professional	Maintenance
BA00394G/00	Tankvision Professional	Movements System Configuration
BA00395G/00	Tankvision Professional	Movements Operation
BA00396G/00	Tankvision Professional	System Operation
BA01293G/00	Tankvision Professional	OPC Tank Data Server
BA01294G/00	Tankvision Professional	OPC TG Client Configuration

Document number	Instrument	Type of Document
BA01295G/00	Tankvision Professional	Web Server/Client System Operation
BA01363G/00	Tankvision Professional	Product and Tank Data Synchronization
BA01653G/00	Tankvision Professional	Simple Movements
BA01654G/00	Tankvision Professional	System Monitor

2 Identification

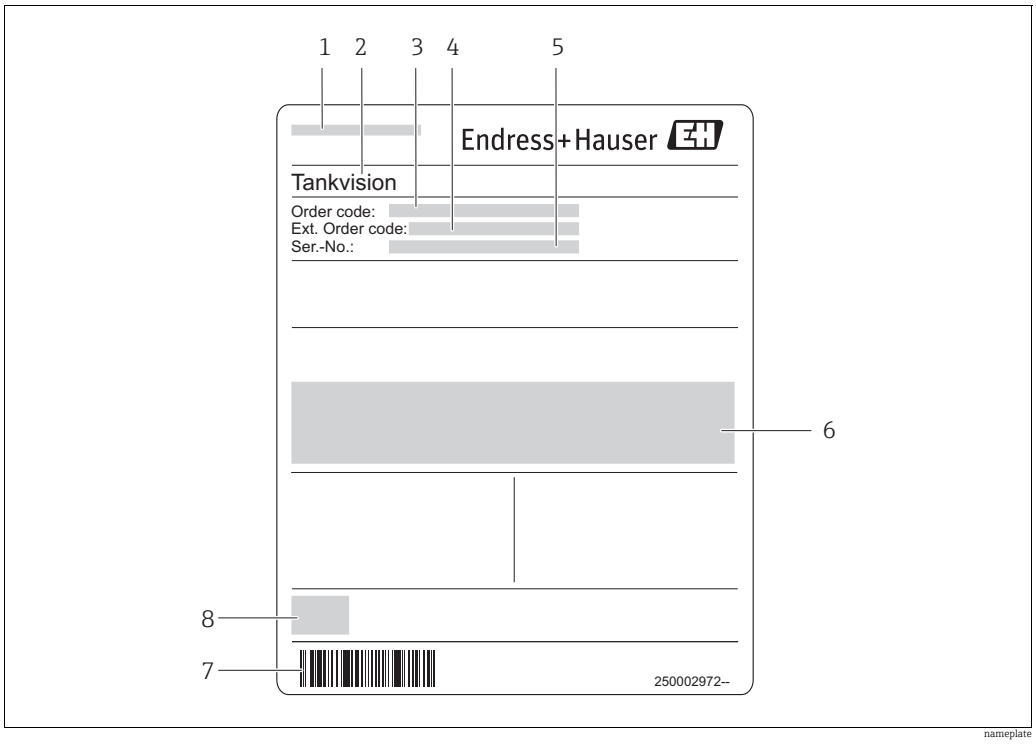
2.1 Product identification

The following options are available for identification of the software:

- Nameplate specifications
- Order code with breakdown of the software features on the delivery note
- Enter serial numbers from nameplates in W@M Device Viewer (www.endress.com/deviceviewer): All information about the software is displayed.

For an overview of the technical documentation provided, enter the serial number from the nameplates in the W@M Device Viewer (www.endress.com/deviceviewer)

2.2 Nameplate



nameplate

1 Address of manufacturer
2 Device name
3 Order code
4 Extended order code (Ext. ord. cd.)
5 Serial number (Ser. no.)
6 Certificate and approval relevant data
7 Barcode
8 CE mark

2.3 Order code and device version

To find out the version of your software, enter the order code indicated on the nameplate in the search screen at the following address:
www.products.endress.com/order-ident

2.4 Device documentation

The information required to retrieve the documentation can be found on the nameplate of the device.

Technical documentation can also be downloaded from the Download Area of the Endress+Hauser web site: www.endress.com→ Download. However this technical documentation applies to a particular instrument family and is not assigned to a specific device.

2.4.1 W@M Device Viewer

1. Launch the W@M Device Viewer: www.endress.com/deviceviewer
2. Enter the serial number (Ser. no.) of the device: see nameplate.
   ↳ All the associated documentation is displayed.

2.4.2 Endress+Hauser Operations App

The *Endress+Hauser Operations App* is available both for android smart phones (Google Play Store) and for iPhones and iPads (App Store).

Via the serial number:

1. Launch the *Endress+Hauser Operations App*.
2. Enter the serial number (Ser. no.) of the device: see nameplate.
   ↳ All the associated documentation is displayed.

2.5 Registered trademarks

Microsoft®, Windows® and Internet Explorer®
Registered trademarks of the Microsoft Corporation

Modbus®
Registered trademark of the Modbus-IDA, Hopkinton, MA, USA

Java®
Registered trademark of Sun Microsystems, Inc.

Mozilla® Firefox®
Registered trademark of the Mozilla Foundation

Android® and Google Play® are registered trademarks of Google Inc.

iPhone® and iPad® are trademarks of Apple® Inc., registered in the U.S. and other countries.

3 Basic safety instructions

3.1 Requirements for the personnel

The personnel for installation, commissioning, diagnostics and maintenance must fulfill the following requirements:

- Trained, qualified specialists: must have a relevant qualification for this specific function and task
- Are authorized by the plant owner/operator
- Are familiar with federal/national regulations
- Before beginning work, the specialist staff must have read and understood the instructions in the Operating Instructions and supplementary documentation as well as in the certificates
  (depending on the application)
- Following instructions and basic conditions

The operating personnel must fulfill the following requirements:

- Being instructed and authorized according to the requirements of the task by the facility's owner operator
- Following the instructions in these Operating Instructions

3.2 IT security

We only provide a warranty if the device is installed and used as described in the Operating Instructions. The device is equipped with security mechanisms to protect it against any inadvertent changes to the device settings.

IT security measures in line with operators' security standards and designed to provide additional protection for the device and device data transfer must be implemented by the operators themselves.

3.3 Designated use

3.3.1 Application

Tankvision Professional is specifically designed for operators of bulk storage facilities, marketing terminals, refineries and pipelines. It is designed to handle all the data acquisition, supervisory control and monitoring required in a single fully integrated solution.

Tankvision Professional integrates all major types of tank measurement instruments into one system.

All measured and calculated tank parameters are accessible to your tank farm and terminal operators as well as to connected host systems.
Multi-user operation is provided by the inbuilt Web Server offering the opportunity to access data at any connected location (local/remote) e.g. for administrative and accounting purposes.

3.4 Workplace safety

For work on and with the device:

- Wear the required personal protective equipment according to federal/national regulations.
- Switch off the supply voltage before connecting the device.

3.5 Operational safety

Risk of injury!

- Operate the device in proper technical condition and fail-safe condition only.
- The operator is responsible for interference-free operation of the device.

Conversions to the device
Unauthorized modifications to the device are not permitted and can lead to unforeseeable dangers

- If, despite this, modifications are required, consult with Endress+Hauser.

Repair
To ensure continued operational safety and reliability,

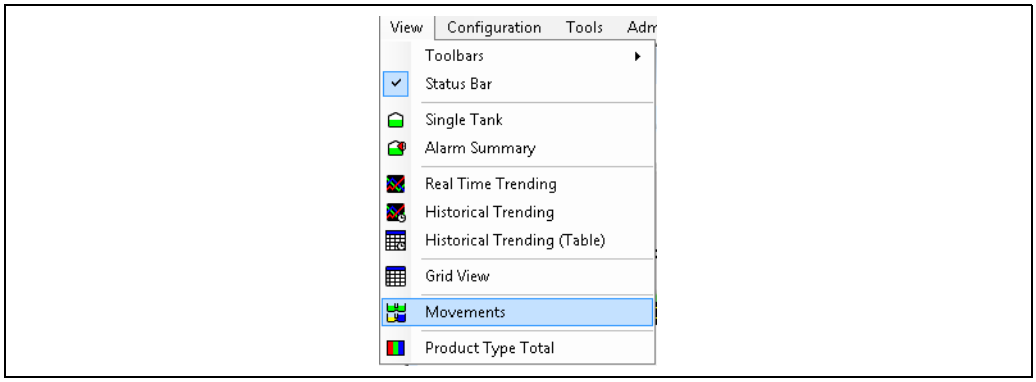
- Carry out repairs on the device only if they are expressly permitted.
- Observe federal/national regulations pertaining to repair of an electrical device.
- Use original spare parts and accessories from Endress+Hauser only.

3.6 Product safety

The device is designed to meet state-of-the-art safety requirements, has been tested and left thefactory in a condition in which it is safe to operate. The device complies with the applicable standards and regulations as listed in the EC declaration of conformity and thus complies with the statutory requirements of the EG directives. Endress+Hauser confirms the successful testing of the device by affixing to it the CE mark.

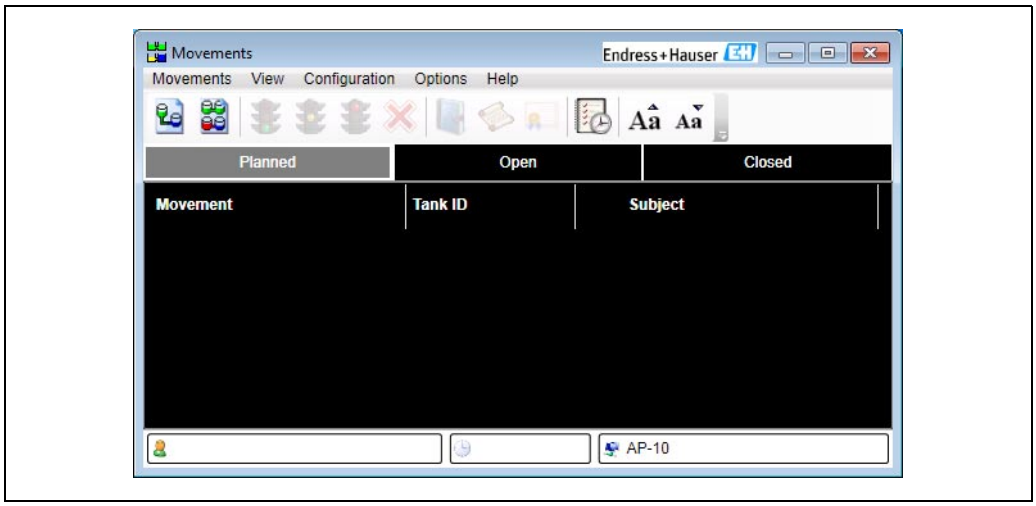
4 Movements Configuration Introduction

The movements system within the tank gauging software is used to plan, open, suspend and close movements.



BA00394GEN_019

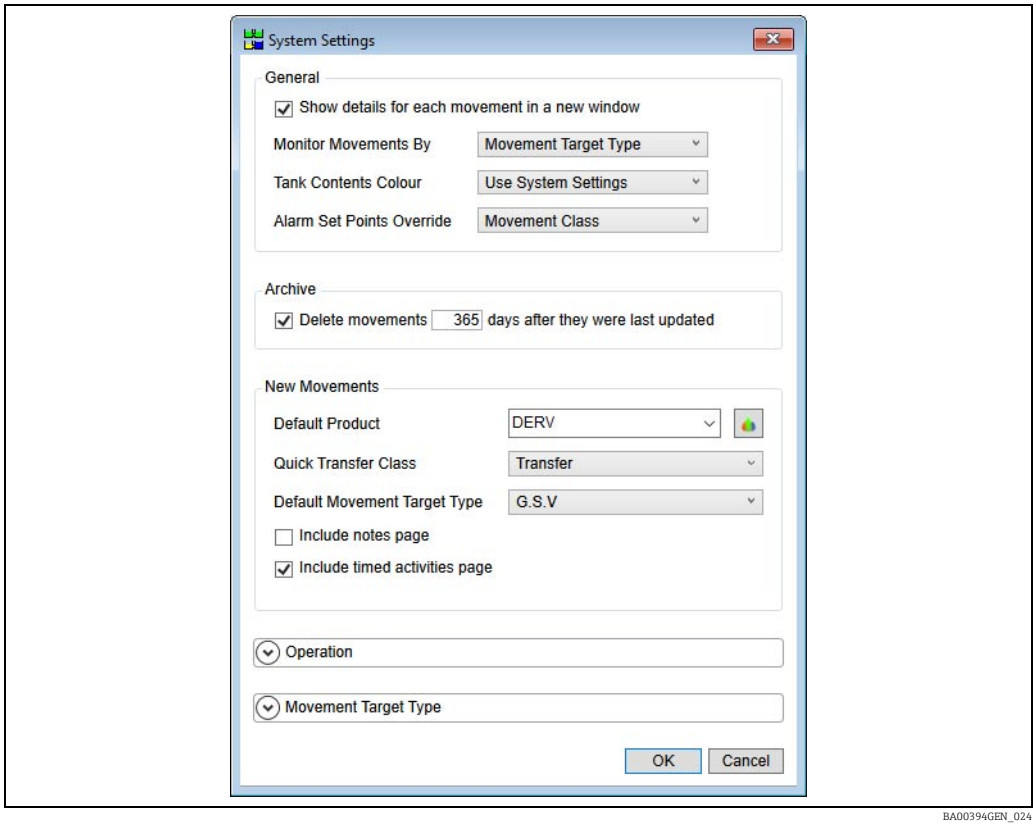
1. To open the **Movements Summary** screen in Tankvision Professional click **View** → **Movements**.



BA00394GEN_001

5 System Settings

The system settings screen is accessed from the **Movements Summary** screen by selecting the **System Settings** entry from the **Configuration** menu:



BA00394GEN_024

5.1 General Settings

5.1.1 Show details for each movement in a new window

If the **Show details for each movement in a new window** box is ticked, a new window is opened every time a request to view a movement's details is made. Otherwise, only one details window is created and only details of the last selected movement are displayed.

5.1.2 Monitor Movements By

When viewing a movement in the detail window, this option dictates what quantity will be used to display the progress of the movement. Most of the options are self-evident, the Movement Target Type changes the selected monitoring quantity based on how the movement was configured.

The options are:
- Movement Target Type
- GOV
- TOV
- GSV
- Weight
- Mass

5.1.3 Tank Contents Colour

The **Tank Contents Colour** drop down list allows configuration of the way that tank graphics are to be displayed on the details window:

- **Use System Settings** - Use the flag from the Tankvision Professional system settings.
- **Use Product Colour** - Use the colour defined for the product that the tank contains.
- **Use Flow Colour** - Use Blue if the tank level is going up, Brown if the tank level is going down, or green if the tank is static.

5.1.4 Alarm Set Points Override

This drop down list allows configuration of the way that the default alarm set points are overridden:
- **Tank** – Alarm set points can be overridden for individual tanks.
- **Movement Class** - Alarm set points can be overridden for different movement classes.

5.2 Archive

If this box is ticked, movements will be automatically deleted from the system after the entered number of days.

5.3 New Movements

The settings in this section affect the New Movement Wizard.

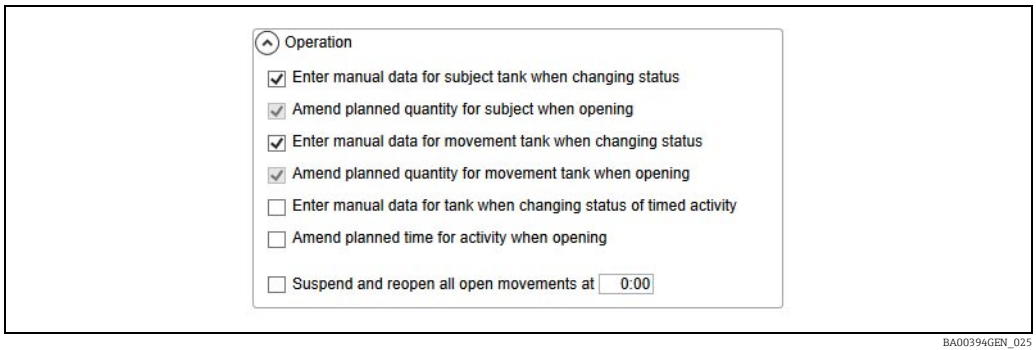
- **Default Product**: the product that is initially selected on the **Movement Details Page** of the New Movement Wizard.
- **Quick Transfer Class**: the movement class that movements configured using the quick transfer screen are given.
- **Default Movement Target Type**: the default quantity type used to plan movements.
- **Include Notes Page**: if set, the user will be presented with the opportunity to enter some notes on the movement during the creation process.
- **Include timed activities**: if set, the user will be prompted to add timed activities to the movement during the creation process.

Note the default movement target type must be selected as one of the movement target types to be offered to users.

Note that these setting only affect movements created after the settings are changed, not ones already created.

5.4 Operation

The operation settings are an expandable group that is initially contracted when the window opens. Expand the group to access the settings. See figure below.



- If the **Enter manual data for subject tank when changing status** box is ticked, the user will be shown a screen allowing the manual data figures for the associated tanks to be entered when opening, suspending, reopening or closing movement subjects.
- If the **Amend planned quantity for subject when opening** box is ticked, the user will be shown a screen allowing the planned quantities to be amended when opening or reopening movement subjects.

  If the planned quantity would take the tank associated with the movement subject above the maximum operating level or below the minimum operating level, the screen will be displayed anyway.
- If the **Enter manual data for movement tank when changing status** box is ticked, the user will be shown a screen allowing the manual data figures for the associated tanks to be entered when opening, suspending, reopening or closing movement tanks.
- If the **Amend planned quantity for movement tank when opening** box is ticked, the user will be shown a screen allowing the planned quantities to be amended when opening or reopening movement tanks.

  If the planned quantity would take the tank associated with the movement subject above the maximum operating level or below the minimum operating level, the screen will be displayed anyway.
- If the **Enter manual data for tank when changing status of timed activity** box is ticked, the user will be shown a screen allowing the manual data figures for the associated tanks to be entered when opening, suspending, reopening or closing timed activities.

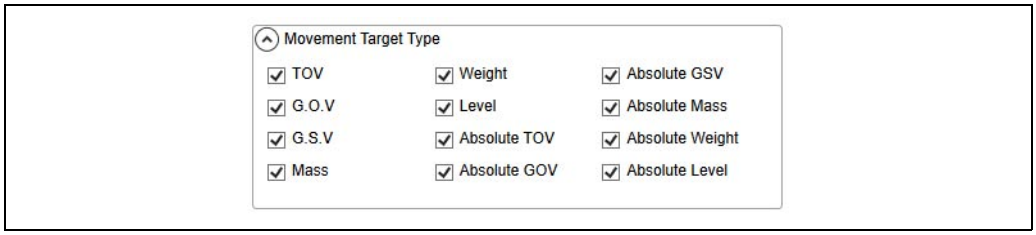
- If the **Amend planned time for activity when opening** box is ticked, the user will be shown a screen allowing the planned time to be amended when opening or reopening timed activities.
- If the **Suspend and reopen all open movements** box is ticked, all open movements will be automatically suspended and reopened at the entered time. The normal use for this is to allow the inventory figures to be broken down into figures for each day the movement is open by suspending and reopening all open movements at midnight.

When you close the movement, the screen to set the manual data for the tank will be presented, there is a **Calculator** button on the reference density entry box.

1. Click the **Calculator** button. This will offer you the movement density calculation screen.
2. Enter an observed density for the movement cargo and the average density is returned from the calculation screen to the manual data screen.
3. Close the manual data screen to finish the movement and the manual density value for the tank is updated.

5.5 Movement Target Types

The movement target types are an expandable group that is initially contracted when the dialogue opens. Expand the group to access the settings. See figure below.



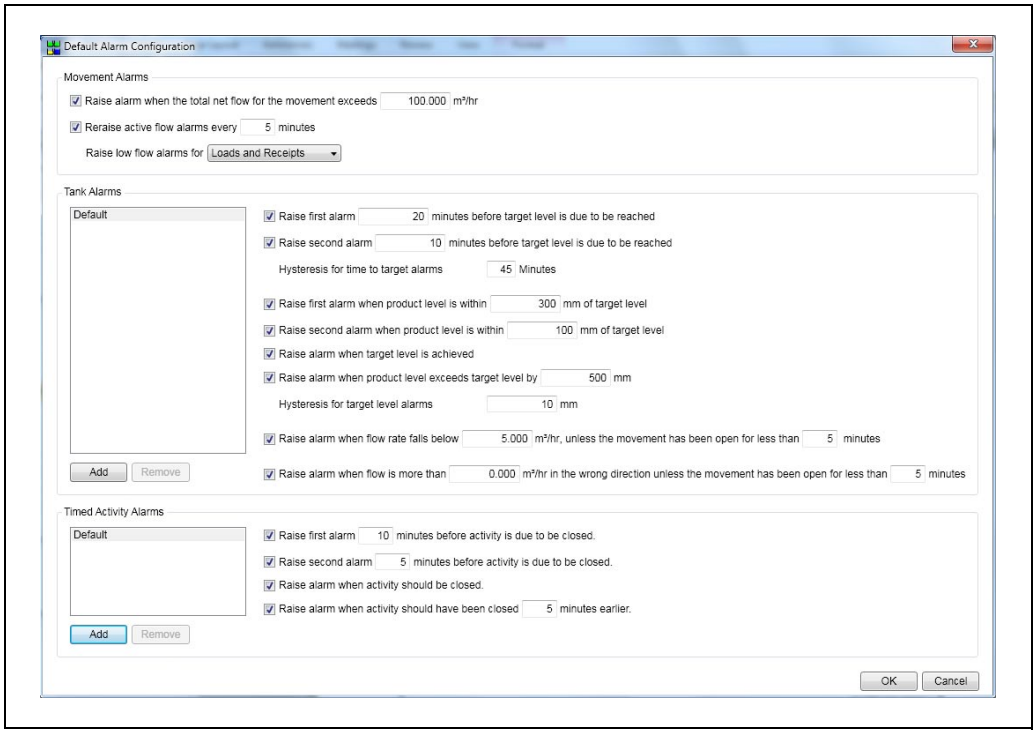
BA00394GEN_026

Tick the movement target types that you wish operators to use when configuring movements and transfers. You must select the movement target type that matches your choice of default movement target type. These settings just control the target types offered during the configuration of movements and transfers, they do not:

- Limit the choice of fill, empty or strip, which have implied movement target types associated with their use.
- Alter the chosen movement target types of previously configured movements.
- Cause "absolute" types to appear in situations where their use is precluded.

6 Alarm Defaults

The system settings screen is accessed from the **Movements Summary** screen by selecting the **Alarm Defaults** entry from the **Configuration** menu:



BA00394GEN_003

This screen is used for entering the default values for alarms. Once a movement has been created, the alarm settings for that movement can be amended using the **Edit Alarm Configuration** option. See the Movements System Operation manual BA00395G for more details.

6.1 Movement Alarms

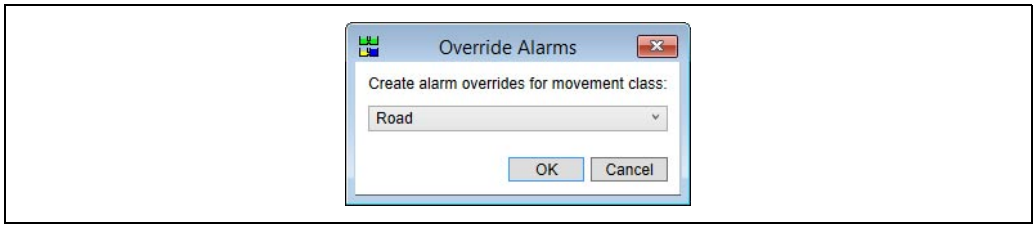
The settings in this section are used to configure the alarms for a complete movement.

- If the **Raise alarm when the total net flow for the movement exceeds** box is ticked, an alarm will be raised for the movements when the total flow for all open receipt tanks on the movement is difference from the total flow for all open load tanks on the movement by more than the entered amount.
- If the **Reraise active flow alarms** box is ticked, active low flow alarms and reverse flow alarms will be raised at the entered time period. If this box is not ticked, low flow alarms are automatically reset when the flow from the tank rises above the entered threshold and will be reraised when the flow from the tank next drops below the threshold. Similarly reverse flow alarms are automatically reset when the flow from the tank drops below the entered threshold and are reraised when the flow from the tank rises above the threshold.
- The **Raise low flow alarms for** drop down list allows configuration of the direction for which low flow alarms are to be raised.

6.2 Tank Alarms

Default values for tank alarms can be set on a global basis, but can also be overridden for specific tanks or movement classes, see option **System Settings**. A new set of overrides can be added by clicking on the **Add** button. This will cause a new screen to be displayed allowing selection of the tank for which overrides are to be set:

BA00394GEN_004



BA00394GEN_022

The tank/class for which overrides are to be set should be selected from the drop down list.

1. Click the **OK** button to add the new set of overrides to the list.
   Similarly a set of overrides can be removed by selecting the override in the list and then clicking the **Remove** button.

The individual settings have the following effect:

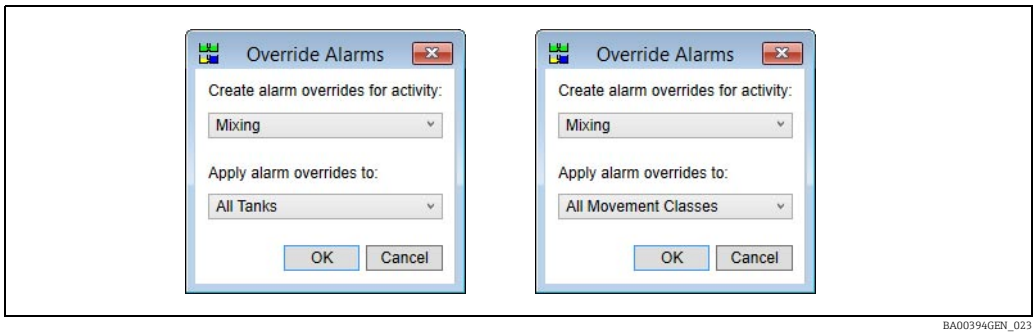
- If the **First time to target alarm** box is ticked an alarm will be raised for a movement tank when the estimated time to finish for that tank falls below the entered value. By default this is an alarm of low severity.
- If the **Second time to target alarm** box is ticked an alarm will be raised for a movement tank when the estimated time to finish for that tank falls below the entered value. By default this is an alarm of high severity.
- The **Hysteresis for time to target alarms** field controls when the time to target alarms are reset. If an anomaly in the flow rate causes the time to target alarms to be raised prematurely by causing an incorrect calculation of the estimated time to finish, they will be reset when the estimated time to finish exceeds the entered threshold by the hysteresis amount.
- If the **First approaching target alarm** box is ticked an alarm will be raised when the product level in the tank differs from the target level by less than the entered value. By default this is an alarm of low severity.
- If the **Second approaching target alarm** box is ticked an alarm will be raised when the product level in the tank differs from the target level by less than the entered value. By default this is an alarm of high severity.
- If the **Raise alarm when target level is achieved** box is ticked an alarm will be raised when the product level in the tank reaches the target level. By default this is an alarm of high severity.
- If the **Target level exceeded alarm** box is ticked an alarm will be raised when the product level in the tank exceeds the target level by the entered value. By default this is an alarm of critical severity.
- The **Hysteresis for target level alarms** box controls when the target level alarms are reset. If an anomaly in the product level reading causes the target level alarms to be raised prematurely, they will be reset when the difference between the product level and target level exceeds the entered value for that alarm plus the hysteresis value.

- If the **Low flow alarm box** is ticked an alarm will be raised if the flow rate for the tank falls below the entered threshold, unless the movement tank has been open for less than the entered time.
  - If the **Re-raise active flow alarms** box is ticked (see Movement Alarms, → 16) this alarm will be re-raised at the specified time interval for as long as the flow rate for the tank remains below the entered threshold.
  - If the **Re-raise active flow alarms** box is not ticked, the alarm will be raised once when the flow rate falls below the entered threshold. The alarm will not be re-raised unless the flow rate rises above the entered threshold and then falls below it again.
- If the **Reverse flow alarm** box is ticked an alarm will be raised if the flow rate for the tank is in the wrong direction by more than the entered threshold, unless the movement tank has been open for less than the entered time.
  - If the **Re-raise active flow alarms** box is ticked (see Movement Alarms, → 16) this alarm will be re-raised at the specified time interval for as long as the flow rate for the tank remains above the entered threshold in the wrong direction.
  - If the **Re-raise active flow alarms** box is not ticked, the alarm will be raised once when the flow rate rises above the entered threshold in the wrong direction. The alarm will not be re-raised unless the flow rate falls below the entered threshold in the wrong direction and then rises above it again.
- If the **Disable alarm** box is ticked, a reverse flow alarm will not be raised until after the flow has exceeded the entered flow rate in the correct direction. This is to prevent false alarms caused by initial flow of product when valves are opened.

6.3 Timed Activity Alarms

Default values for timed activity alarms can be set on a global basis, but can also be overridden for specific tanks/movement classes and/or timed activities.

1. A new set of overrides can be added by clicking on the **Add** button.
   This will cause a new screen to be displayed allowing selection of the timed activity and tank for which overrides are to be set:



BA00394GEN_023

The timed activity and tank/class for which overrides are to be set should be selected from the drop down lists.

2. Click the **OK** button to add the new set of overrides to the list.
   Similarly a set of overrides for a timed activity/tank combination can be removed by selecting the entry in the list and then clicking the **Remove** button.

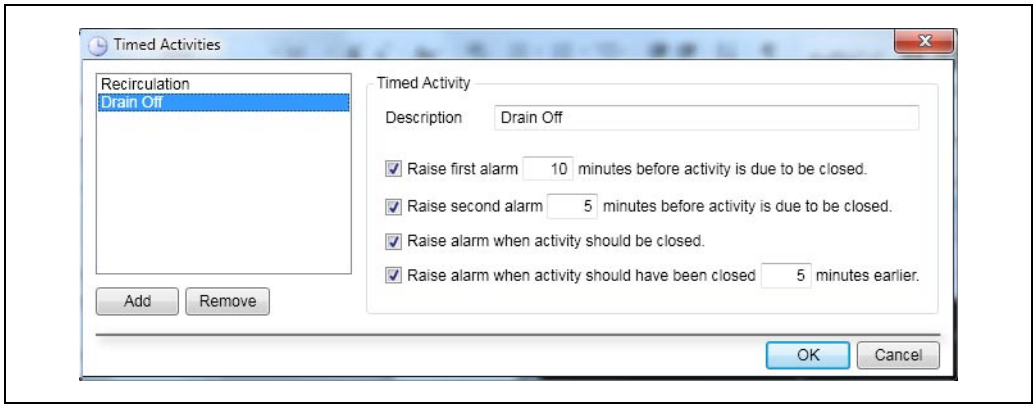
The individual settings have the following effect:

- If the **First alarm** box is ticked an alarm will be raised for a timed activity when the time remaining for that activity falls below the entered value. By default this is an alarm of low severity.
- If the **Second alarm** box is ticked an alarm will be raised for a timed activity when the time remaining for that activity falls below the entered value. By default this is an alarm of high severity.
- If the **Raise alarm when activity should be closed** box is ticked an alarm will be raised when the timed activity should be completed (based on the planned time).

- If the **Overdue alarm** box is ticked, an alarm will be raised for a timed activity when the time the activity has been open exceeds the planned time by more than the entered amount.

7 Timed Activities

The timed activities screen is accessed from the **Movements Summary** screen by selecting the **Timed Activities** entry from the **Configuration** menu:



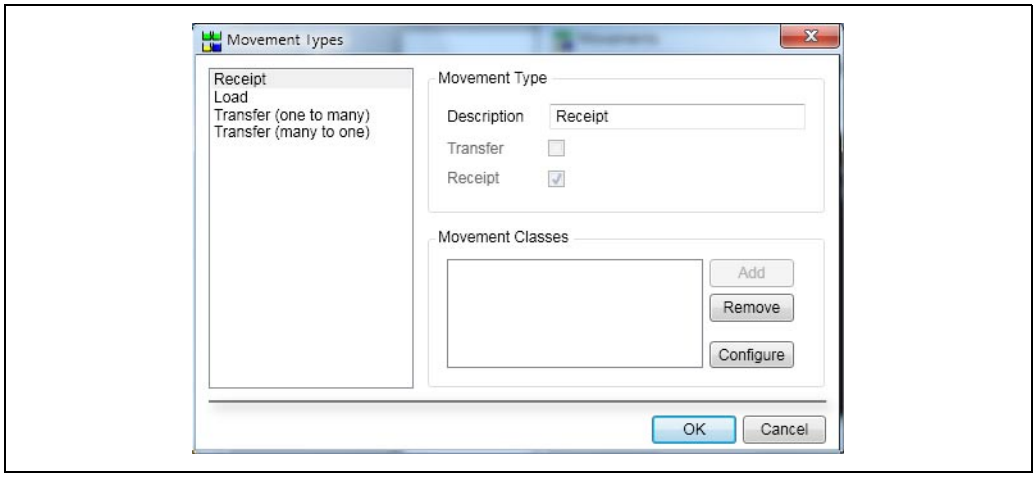
BA00394GEN_006

This screen is used for creating, deleting and editing timed activities.

- To create a new timed activity, click the **Add** button. A new activity will be added to the list as the currently selected entry. Details of the new activity can then be edited.
- To remove a timed activity, select the activity to be removed in the list of activities and then click the **Remove** button.
- To edit a timed activity, select the activity to be edited in the list of activities. The current values for the activity will be displayed on the right hand part of the screen and can be edited as required.

8 Movement Types

The movement types screen is accessed from the **Movements Summary** screen by selecting the **Movement Types** entry from the **Configuration** menu:



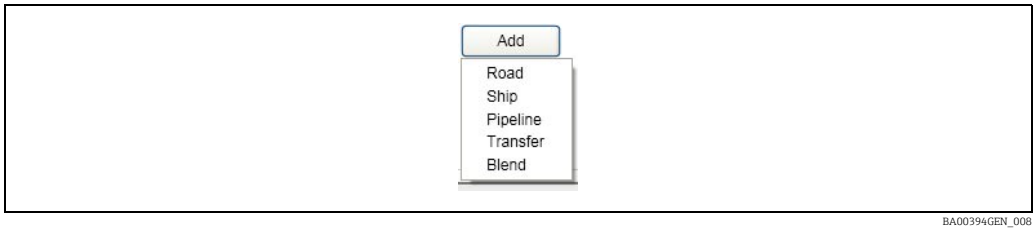
BA00394GEN_007

This screen is used for editing movement types. There are four movement types:
- Receipt
- Load
- Transfer (one to many)
- Transfer (many to one)

1. To edit a movement type, select the movement type from the list of movement types.

The current values for the movement type will be displayed on the right hand part of the screen. Although the description can be edited, the movement type can still be determined using the **Transfer** and **Receipt** fields which are not editable.

2. To associate a movement class with the currently selected movement type, click the **Add** button.
A list of the currently configured movement classes will be displayed:



BA00394GEN_008

3. Select the movement class to be associated with the currently selected movement type from the list.
The movement class will then be added to the list of movement classes associated with the currently selected movement type.

4. To disassociate a movement class from the currently selected movement type, select the movement class in the list of associated movement classes and click the **Remove** button.

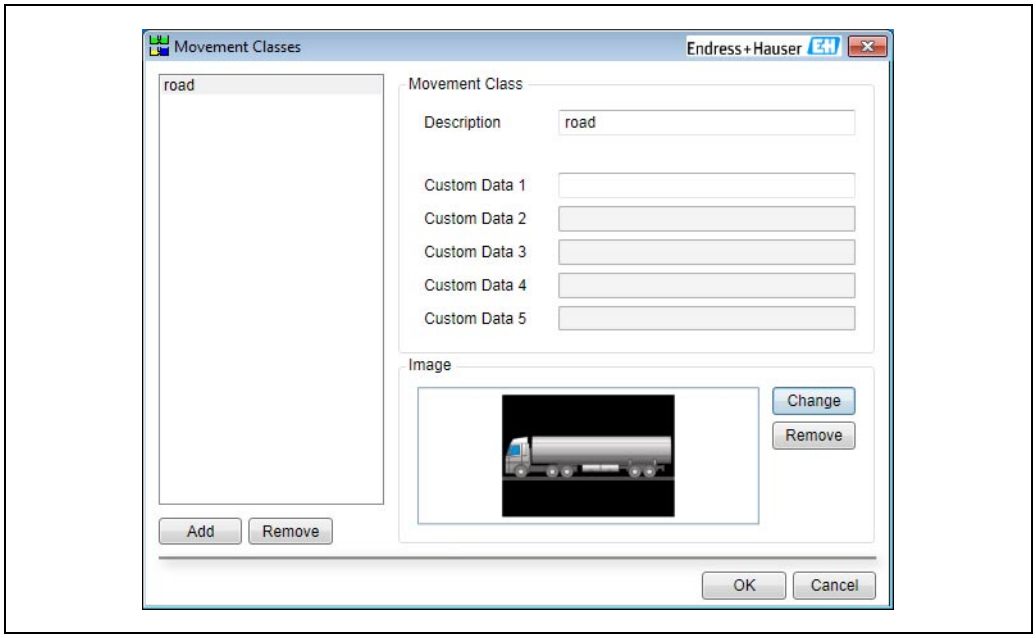
5. To edit available movement classes, click the **Configure** button.
This will display the **Movement Classes** screen (→ 23).

Movement types cannot be used unless they are associated with a movement class which has been pre-configured. Failure to do this will lead to erratic behavior within the movements application.

This is particularly relevant to the simple tank to tank transfer where the movement class is not shown. It is still imperative that the movement types for transfer (one to many and many to one) are associated with a movement class e.g. transfer, or blend or something similar.

9 Movement Classes

The movement classes screen is accessed from the **Movements Summary** screen by selecting the **Movement Classes** entry from the **Configuration** menu or by clicking the **Configure** button on the **Movement Types** (→ 21) screen:



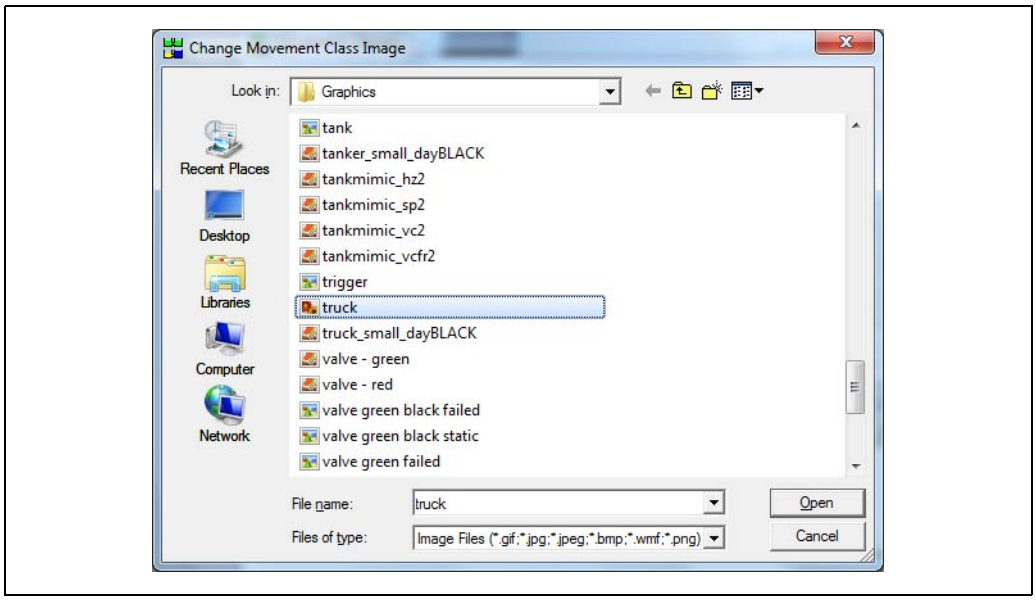
BA00394GEN_009

This screen is used for creating, deleting and editing movement classes:

- **Creating a movement class**
  To create a new movement class, click the **Add** button under the list of existing movement classes. A new movement class will be added to the list as the currently selected entry. Details of the new movement class can then be edited.
- **Deleting a movement class**
  To remove a movement class, select the movement class to be removed in the list of movement classes and then click the **Remove** button under the list of movement classes.
- **Editing a movement class**
  To edit a movement class, select the movement class to be edited in the list of movement classes. The current values for the movement class will be displayed on the right hand part of the screen and can be edited as required.

Movement Class Parameters

- **Description**
  A description of the movement class.
- **Custom Data (n)**
  The caption to be displayed next to the corresponding custom data field in the movement header.
- **Add/Change Image**
  The text on the button in the image area will be **Add** if the movement class does not currently have an image associated with it, or **Change** if it does. Clicking this button will display a file selection screen:



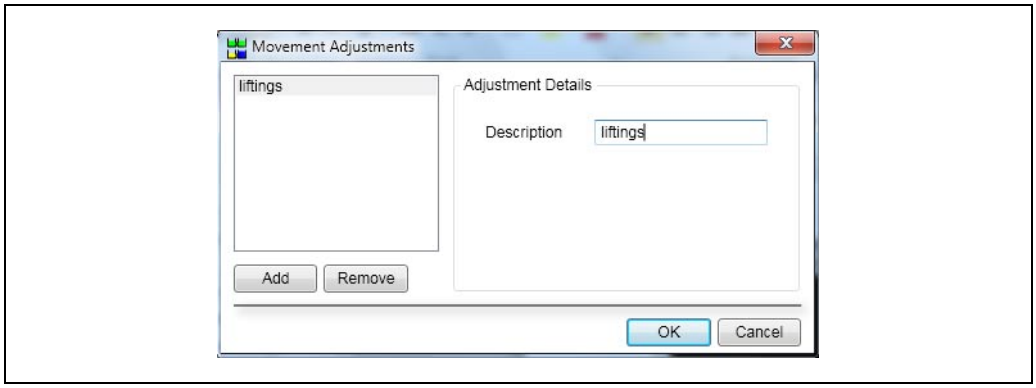
BA00394GEN_010

1. Navigate to the file to be used as the image for the movement class and then click the **Open** button.

- **Remove Image**
  If the **Remove** button in the image area is clicked, the image for the movement class will be removed.

10 Adjustments

The adjustments screen is accessed from the Movements Summary Screen by selecting the **Adjustments** entry from the **Configuration** menu:



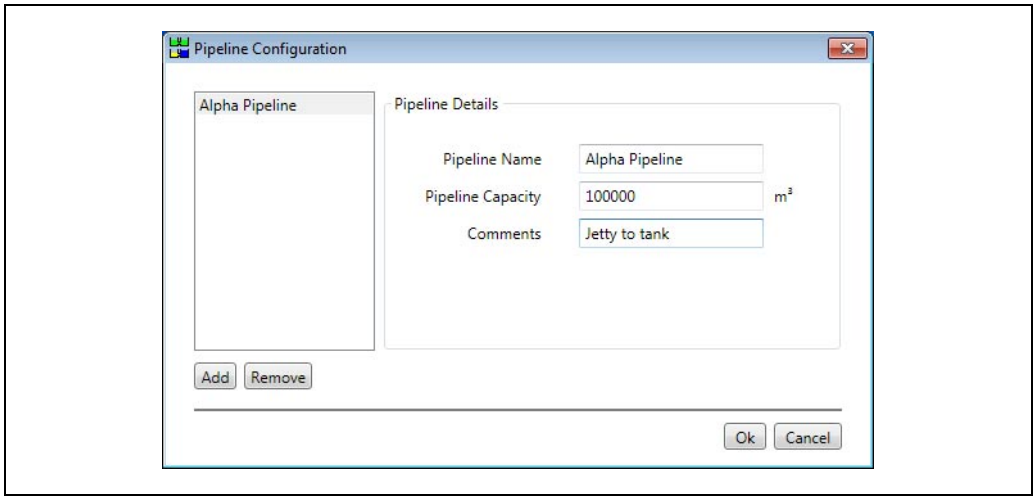
BA00394GEN_011

This screen is used for creating, deleting and editing adjustments.

- **Creating an adjustment**
  To create a new adjustment, click the **Add** button. A new adjustment will be added to the list as the currently selected entry. Details of the new adjustment can then be edited.
- **Deleting an adjustment**
  To remove an adjustment, select the adjustment to be removed in the list of adjustments and then click the **Remove** button.
- **Editing an adjustment**
  To edit an adjustment, select the adjustment to be edited in the list of adjustments. The current values for the adjustment will be displayed on the right hand part of the screen and can be edited as required.

11 Pipeline Configuration

The **Pipeline Config** screen is accessed from the **Movements Summary** screen by selecting the **Pipeline Config** entry from the **Configuration** menu:



BA00394GEN_012

This screen is used for creating, deleting and editing pipelines.

Creating a new pipeline

To create a new pipeline, click the **Add** button. A new pipeline will be added to the list as the currently selected entry. Details of the new pipeline can then be edited.

Removing a pipeline

To remove a pipeline, select the pipeline to be removed in the list of pipelines and then click the **Remove** button.

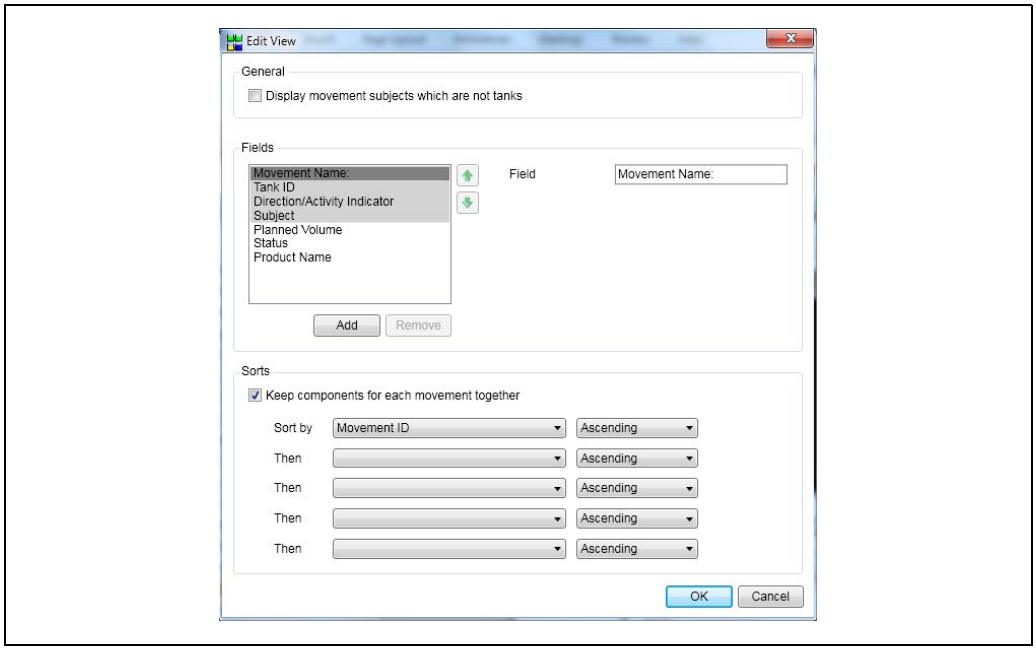
Editing a pipeline

To edit a pipeline, select the pipeline to be edited in the list of pipelines. The current values for the pipeline will be displayed on the right hand part of the screen and can be edited as required.

12 Maintain View

The columns displayed in the summary views and historical view can be changed or reordered along with the order that the movement records are displayed in.

- To modify a view on the summary screen, make sure that the view to be changed is the view being displayed and then select **Maintain View** from the **Options** menu.
- To modify the view on the historical movements screen, simply select **Maintain View** from the **Options** menu. The following screen will be displayed:



BA00394GEN_013

12.1 General

- If the **Display movement subjects which are not tanks** box is ticked then movement subjects which are not tanks will be displayed in the view.
- If the box is not ticked then only movement subjects which are tanks will be displayed in the view.

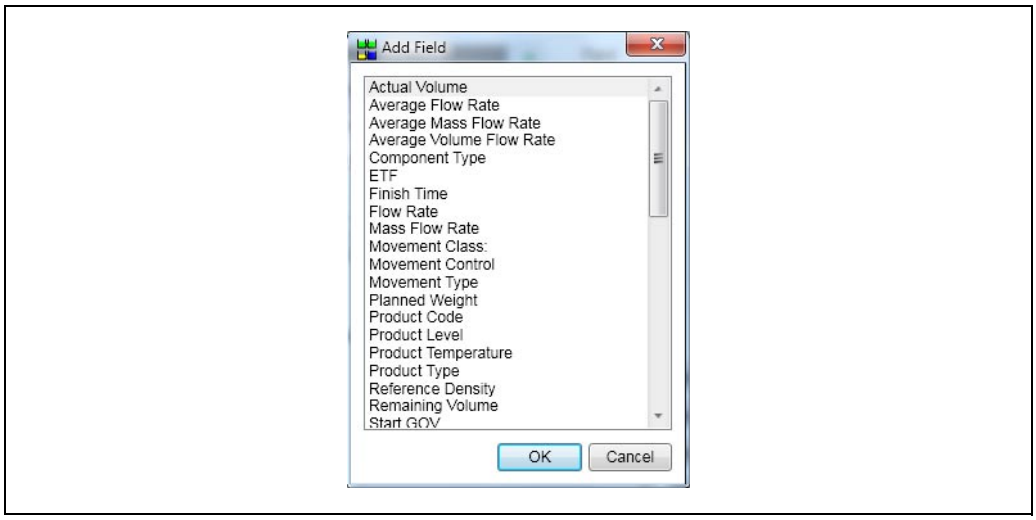
12.2 Fields

The fields section contains a list of the fields currently displayed in the view. The fields that have a gray background are fields that cannot be reordered or removed.

Adding a new field

To add a new field to the list, proceed as follows:

1. Click the **Add** button.
   A screen containing a list of available fields will be displayed:



2. Select the field to be added and click the **OK** button.

Removing a field

To remove a field from the list, select it and then click the **Remove** button.

Moving a field up and down

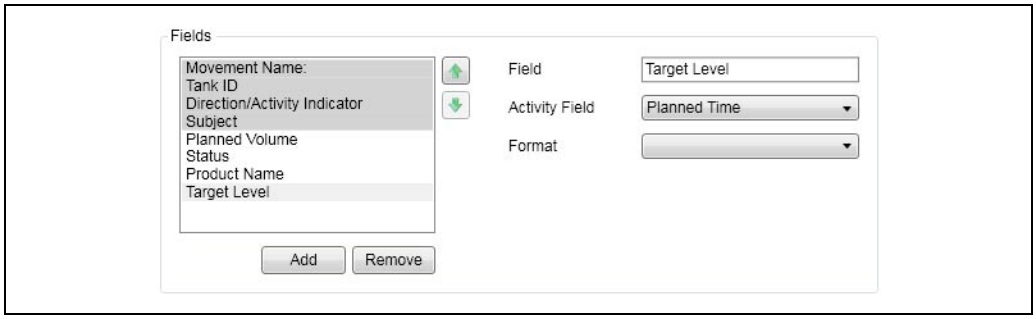
To move a field up the list (left in the view), select it and click the button.

To move a field down the list (right in the view), select it and click the button.

Further configurations

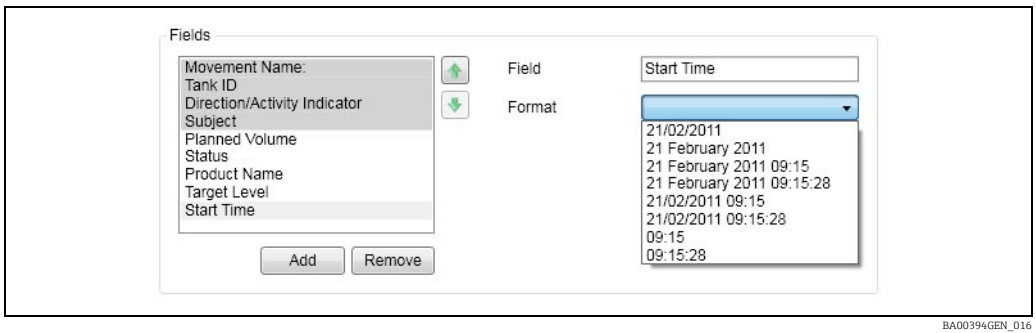
For some fields it is possible to configure them further:

- If a field is only applicable to a tank (for example **Target Level**), an alternative field can be selected for entries that are timed activities:



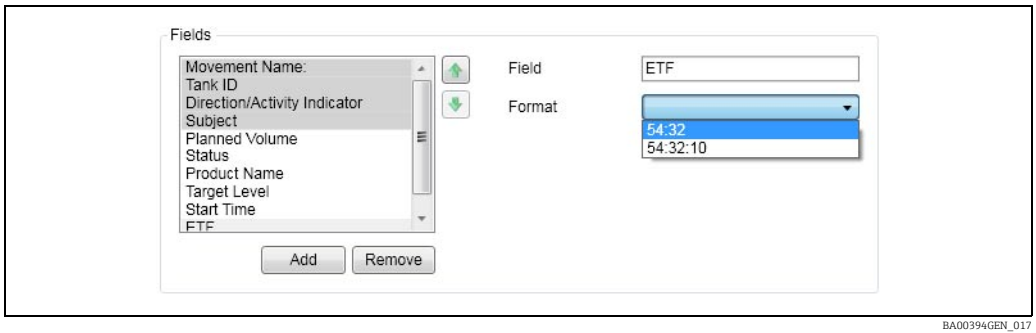
BA00394GEN_015

- If a field contains a date/time value, a format can be specified:



BA00394GEN_016

- If a field contains a time span value, a format can be specified:



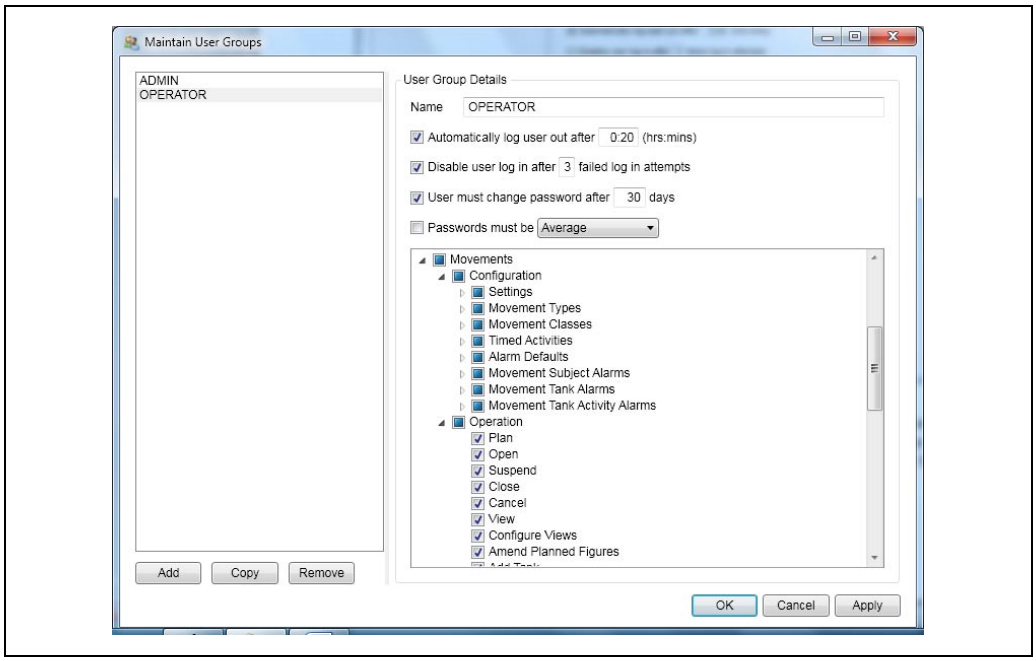
BA00394GEN_017

12.3 Sorts

If the **Keep components for each movement together** box is ticked, the rows for each movement will be kept together and the entire movement will be sorted according to the sort criteria.
The sort criteria are set by selecting a field from the drop down list of fields and then selecting the order from the corresponding drop down list. Up to five fields can be chosen as sort criteria.

13 Security

The access rights for the movements system are set on a user group basis. For the access rights to be applied to a specific user they must be a member of the given user group. The access rights are maintained using the **Maintain User Groups** option from the **Security** menu on the Tankvision Professional Home Page:



BA00394GEN_018

The access rights relating to the movements system all come under the **Movements** entry in the access rights list (see above). To amend the access rights for a user group, select the relevant user group from the list of user groups and then tick and untick the relevant boxes in the access rights list.

13.1 Configuration

13.1.1 Settings

View

This option should be ticked if members of the user group are allowed to view the **System Settings** screen (→ 12).

Edit

This option should be ticked if members of the user group are allowed to edit the **Movement Settings**.

13.1.2 Adjustments

View

This option should be ticked if members of the user group are allowed to view the **Adjustments** screen (→ 25).

Edit

This option should be ticked if members of the user group are allowed to edit **Adjustment Details**.

Add

This option should be ticked if members of the user group are allowed to create new **Adjustments**.

Remove

This option should be ticked if members of the user group are allowed to remove **Adjustments**.

13.1.3 Alarm Defaults

View Movement Alarms

This option should be ticked if members of the user group are allowed to view the default movement alarm settings on the **Alarm Defaults** screen (→ 16).

Edit Movement Alarms

This option should be ticked if members of the user group are allowed to edit the **Default Movement Alarm Settings**.

View Tank Alarms

This option should be ticked if members of the user group are allowed to view the default tank alarm (→ 17) settings on the **Alarm Defaults** screen (→ 16).

Edit Tank Alarms

This option should be ticked if members of the user group are allowed to edit the **Default Tank Alarm Settings**.

Add Tank Alarm Override

This option should be ticked if members of the user group are allowed to create new **Tank Override Alarm Settings**.

Remove Tank Alarm Override

This option should be ticked if members of the user group are allowed to remove **Tank Override Alarm Settings**.

View Timed Activity Alarms

This option should be ticked if members of the user group are allowed to view the default timed activity alarm settings on the **Alarm Defaults** screen.

Edit Timed Activity Alarms

This option should be ticked if members of the user group are allowed to edit the **Default Timed Activity Alarm Settings**.

Add Timed Activity Alarm Override

This option should be ticked if members of the user group are allowed to create new **Timed Activity Override Alarm Settings**.

Remove Timed Activity Alarm Override

This option should be ticked if members of the user group are allowed to remove **Timed Activity Override Alarm Settings**.

13.1.4 Movement Classes

View

This option should be ticked if members of the user group are allowed to view the **Movement Classes** screen (→ 23).

Edit

This option should be ticked if members of the user group are allowed to edit **Movement Class Details**.

Add

This option should be ticked if members of the user group are allowed to create new **Movement Classes**.

Remove

This option should be ticked if members of the user group are allowed to remove **Movement Classes**.

13.1.5 Movement Subject Alarms

View

This option should be ticked if members of the user group are allowed to view the **Alarm Settings** for **Movement Subjects**.

Edit

This option should be ticked if members of the user group are allowed to edit the **Alarm Settings** for **Movement Subjects**.

13.1.6 Movement Tank Activity Alarms

View

This option should be ticked if members of the user group are allowed to view the **Alarm Settings** for **Timed Activities** on movements.

Edit

This option should be ticked if members of the user group are allowed to edit the **Alarm Settings** for **Timed Activities** on movements.

13.1.7 Movement Tank Alarms

View

This option should be ticked if members of the user group are allowed to view the **Alarm Settings** for **Movement Tanks**.

Edit

This option should be ticked if members of the user group are allowed to edit the **Alarm Settings** for **Movement Tanks**.

13.1.8 Timed Activities

View

This option should be ticked if members of the user group are allowed to view the **Timed Activities** screen (→ 20).

Edit

This option should be ticked if members of the user group are allowed to edit **Timed Activity Details**.

Add

This option should be ticked if members of the user group are allowed to create new **Timed Activities**.

Remove

This option should be ticked if members of the user group are allowed to remove **Timed Activities**.

13.2 Operation

Movement Certificate

Modify permits a user to modify the movement certificate data, for instance to add independent dips from a third party.
View permits a user to view and print the movement certificate.

Simple

Options applying to the simple movements. If using the full movements package it is recommended to disable these options.

Add Tank

This option should be ticked if members of the user group are allowed to add extra tanks to **Movements**.

Add Timed Activity

This option should be ticked if members of the user group are allowed to add extra **Timed Activities** to **Movements**.

Amend Planned Figures

This option should be ticked if members of the user group are allowed to amend plannend figures.

Cancel

This option should be ticked if members of the user group are allowed to cancel **Movements**.

Close

This option should be ticked if members of the user group are allowed to close **Movements**.

Configure Views

This option should be ticked if members of the user group are allowed to configure **Views** (→ 27).

Edit Movement Header

This option should be ticked if members of the user group are allowed to edit the header details of **Movements**.

Movement Log

This option should be ticked if members of the user group are allowed to view **Movement Logs**.

Open

This option should be ticked if members of the user group are allowed to open **Movements**.

Plan

This option should be ticked if members of the user group are allowed to plan **Movements**.

Suspend

This option should be ticked if members of the user group are allowed to suspend **Movements**.

View

This option should be ticked if members of the user group are allowed to view **Movements**.

View Historical Movements

This option should be ticked if members of the user group are allowed to view the **Historical Movements** screen.

View History

This option should be ticked if members of the user group are allowed to view the history of **Movements**.

13.2.1 Tank Limits

Plan Above Max Operating Figures

This option should be ticked if members of the user group are allowed to plan **Movements** that would take tanks above their maximum operating level or volume.

Plan Below Min Operating Figures

This option should be ticked if members of the user group are allowed to plan **Movements** that would take tanks below their minimum operating level or volume.

Open Above Max Operating Figures

This option should be ticked if members of the user group are allowed to open **Movements** that would take tanks above their maximum operating level or volume.

Open Below Min Operating Figures

This option should be ticked if members of the user group are allowed to open **Movements** that would take tanks below their minimum operating level or volume.

14 Glossary

Actual Volume	The volume transferred since the movement was opened.
ETF	Estimated time to finish.
Load	Product is taken from a tank to a place outside the site.
Planned Volume	The volume to be transferred by the movement.
Receipt	Product arrives from outside the site to be stored in a tank on site.
Subject	The movement subject is the tank or transport which will receive or export the whole of the planned volume.
Transfer	Product is moved between two or more storage vessels on the site.

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