TankMaster
Batch Handling
Rosemount Tank Radar REX
Tank Gauging System

NOTICE

Read this manual before working with the product. For personal and system safety, and for optimum product performance, make sure you thoroughly understand the contents before installing, using, or maintaining this product.

For equipment service or support needs, contact your local Emerson Process Management/Rosemount Tank Gauging representative.

The contents, descriptions and specifications within this manual is subject to change without notice. Rosemount TankRadar AB accepts no responsibility for any errors that may appear in this manual.

Cover Photo: TM_BatchHandling_Ed1_303041.jpg
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**Configure Batch Server**

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Section 1 Getting Started

1.1 INTRODUCTION

This document describes how to operate the TankMaster WinOpi batch handling system developed by Emerson Process Management/Rosemount Tank Gauging.

The batch handling system is an extension to the existing TankMaster system. It provides you with powerful functions for setup, monitoring, alarm handling, backup, reports, recalculation of delivery tickets and redundancy. There are also optional functions available (require a hardware key) allowing you to save batches in a MS Access database up to 365 days, and a transfer calculator for planning new batches.

For instructions how to install, configure and use the TankMaster system, see TankMaster WinSetup User’s Guide [Ref. no. 303027 E] and TankMaster WinOpi User’s Guide [Ref. no. 303028 E].

Additional installation must be made for the batch handling system.

The TankMaster Administrator program is automatically started by the operating system. The Administrator program has an Autostart function which automatically starts up various TankMaster programs.

1.2 HELP

A help function is available under Help in the main menu and when pressing the F1 button or the button in different windows.

1.3 DEFINITIONS AND ABBREVIATIONS

<table>
<thead>
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<th>Abbreviation</th>
<th>Explanation</th>
</tr>
</thead>
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<tr>
<td>bbl</td>
<td>Blue Barrel</td>
</tr>
<tr>
<td>FWL</td>
<td>Free Water Level</td>
</tr>
<tr>
<td>FWV</td>
<td>Free Water Volume</td>
</tr>
<tr>
<td>GOV</td>
<td>Gross Observed Volume</td>
</tr>
<tr>
<td>GSV</td>
<td>Gross Standard Volume</td>
</tr>
<tr>
<td>LAN</td>
<td>Local Area Network</td>
</tr>
<tr>
<td>NSV</td>
<td>Net Standard Volume</td>
</tr>
<tr>
<td>RTG</td>
<td>Radar Tank Gauge</td>
</tr>
<tr>
<td>TOV</td>
<td>Total Observed Volume</td>
</tr>
<tr>
<td>VCF</td>
<td>Volume Correction Factor</td>
</tr>
<tr>
<td>WIA</td>
<td>Weight in air</td>
</tr>
<tr>
<td>WIV</td>
<td>Weight in Vacuum</td>
</tr>
</tbody>
</table>

For more information about the abbreviations, see TankMaster WinOpi User’s Guide [Ref. no. 303028 EN].
1.4 OVERVIEW OF THE BATCH PROCESS

TankMaster lets you create and supervise Batch transfers between source and target tanks. A Batch can be transferred between a plant and a ship or truck, or between tanks within a plant.

A Batch can be divided into smaller units, so called Parcels. It may consist of several Parcels allowing you to, for example, use several source tanks to fill up a single target tank.

In order to create, start and close a Batch you have to make certain configurations of the system, see chapter Section 3 System Configuration for more information about the configuration steps.

During the batch process, alarms and messages about important events in the system are shown to the operator, see chapter 5.1 Monitor and log batch running data and chapter 6.5 View Batch Messages for more information.

All reports in the system are pre-configured according to customized templates. These templates can be edited with MS Notepad or a standard HTML editor. The system will automatically generate the following reports:

- Opening ticket
- Closing ticket
- Batch summary report

The report layout is depending on the chosen Movement Type. The Opening Ticket and Closing Ticket must be signed before opening and closing the parcel/batch.

NOTE!
It is possible to disable signatures, see section Appendix A: Defaults for more information.
Figure 1-1 below shows the different steps(1) in the batch transfer process:

(1) "Open and Start Parcel", "Close and Complete Parcel", and "Enter Batch Closing Data, Close and Complete Batch" can be divided into separate steps. See section Appendix A: Defaults for more information.
Section 2 General

2.1 START AND LOGON

1. To open the WinOpi client, double click on the WinOpi icon on the desktop. The application will start and the Logon to TankMaster window will be displayed.

Figure 2-1. The Logon window

![Logon window]

2. Log on with your user name and password. The password is case sensitive but the user name is not.

In the User name drop down menu you can see the user names of previous users.

NOTE!
If logging on fails five times the user account is disabled. In this case the user account has to be enabled by an administrator.

To administer user accounts, set required access levels, change protection level of separate windows, change password or to change inactivity time-out, see chapter User Management in the TankMaster WinOpi User’s Guide.
2.2 THE WINOPI WORKSPACE

2.2.1 Main Window

Configuration and operation of tanks, batches and parcels is handled in the WinOpi main window in the TankMaster system. In order to use the Batch Handling system, select the **Batches** tab in the WinOpi workspace.

For more information about the folders and menus in the Main window, see *TankMaster WinOpi User’s Guide* [Ref. no. 303028 EN].

Figure 2-2. WinOpi main window
2.2.2 Folders

Batches are organized in different folders corresponding the current state. For each batch there are folders with all included parcels.

Figure 2-3. Batches and Parcels are organized in a folder structure

### Batches Folders
- **Planned Batches**: This folder keeps all planned batches. These Batches are not yet assigned to one or several tanks.
- **Opened Batches**: This folder keeps all opened batches.
- **Closed Batches**: This folder keeps all completed batches for 24 hours (if you haven't changed the default value for closed batches, see section Appendix A: Miscellaneous for more information).

### Batch Subfolders
- **Assigned**: This folder keeps all assigned tanks in a batch.
- **Started**: This folder keeps all started parcels.
- **Closed**: This folder keeps all closed parcels. This option is only used when Close Parcel and Complete Parcel are handled as separate operations.
- **Completed**: This folder keeps all completed parcels.
- **Report**: Each batch has a Report folder which stores Opening Ticket and Delivery Ticket for each parcel as well as the Batch Summary. A report is stored 100 days by default. The report lifetime can be changed to any number of days, see section Appendix A: Miscellaneous for more information.

### NOTE!
Open/Start Parcel and Close/Complete Parcel can be handled as separate operations. For more information see section Appendix A: Defaults.
### 2.2.3 Batches Menu

All functions are available under Batches in the main menu and also by clicking the right mouse button on the appropriate icon.

The following commands are not related to a specific batch. They are available when the Batches icon is selected:

<table>
<thead>
<tr>
<th>Menu item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configure Batch Server</td>
<td>Settings for the Batch server. For more information see chapter 3.1 Batch Server Configuration and Appendix A Configure Batch Server.</td>
</tr>
<tr>
<td>Connect Batch Server</td>
<td>Enabled if there is no connection to the Batch Server. Otherwise disabled. See chapter 6.10 Connect Batch Server for more information.</td>
</tr>
<tr>
<td>Redundancy</td>
<td>Select the Backup Batch Server, see chapter 6.11 Redundancy for more information.</td>
</tr>
<tr>
<td>Disconnect Batch Server</td>
<td>Disconnects the Batch server, see chapter 6.12 Disconnect Batch Server for more information.</td>
</tr>
<tr>
<td>Status</td>
<td>Opens the OPC Server Information window. In this window information about the OPC server and also all events are presented, see chapter 6.13 Status for more information.</td>
</tr>
<tr>
<td>New Batch</td>
<td>Opens the Batch Manual Data window.</td>
</tr>
<tr>
<td>Batches overview</td>
<td>Opens the Batches Overview window. In this window information about all opened and closed batches are shown. See chapter 6.7 Batch Overview for more information.</td>
</tr>
<tr>
<td>Batch Messages</td>
<td>Opens the Active Messages window. In this window you can see all active messages in the system. See chapter 6.5 View Batch Messages for more information.</td>
</tr>
</tbody>
</table>
The following commands are related to a specific batch and are available when a batch icon is selected:

<table>
<thead>
<tr>
<th>Menu Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Batch Status</td>
<td>Opens the Batch Status window. In this window you can find data and messages regarding the selected batch. See chapter 6.6 View Batch Status for more information.</td>
</tr>
<tr>
<td>Batch Manual Data</td>
<td>Opens the Batch Manual Data window allowing you to enter the desired descriptions and specifications for the batch. See chapter 4.1 Create new batch for more information.</td>
</tr>
<tr>
<td>Assign Tanks</td>
<td>Opens the Assign Tanks window. This window is used to choose tanks to be included in a batch transfer, and to specify the amount to be transferred. See chapter 4.2 Assign Tanks for more information.</td>
</tr>
<tr>
<td>Enter Closing Data</td>
<td>Opens the Batch Manual Closing Data window. In this window you can choose Operator and Supervisor signatures. Available when Close Batch and Complete Batch are handled as separate operations. See section Appendix A: Defaults.</td>
</tr>
<tr>
<td>Close Batch</td>
<td>Opens the Batch Closing Data window. In this window signature data must be entered to close the batch, see chapter 5.3 Close and complete for more information.</td>
</tr>
<tr>
<td>Complete Batch</td>
<td>Change status from closed batch to completed. This menu item is only available when Close Batch and Complete Batch are handled as separate operations, see section Appendix A: Defaults for more information.</td>
</tr>
<tr>
<td>Delete Batch</td>
<td>This menu item is only available when the batch does not have associated tanks or parcels. It removes the batch from the workspace and the database.</td>
</tr>
<tr>
<td>Remove Batch from Workspace</td>
<td>Removes a completed batch from the workspace. It is possible to put the batch back by using the Add Batch to Workspace menu item.</td>
</tr>
<tr>
<td>Unofficial Summary Report</td>
<td>Before a parcel is completed it is possible to print an Unofficial Summary Report to check and identify missing data. The report is marked with “Unofficial”. This menu item is only available when Close Batch and Complete Batch are configured as separate commands, see section Appendix A: Defaults for more information.</td>
</tr>
<tr>
<td>Summary Report</td>
<td>If you mark a closed batch and choose this menu item, you can select Print Official or Save Official. If Close Batch and Complete Batch are configured as separate commands, you can select the Print Unofficial option for a closed batch.</td>
</tr>
</tbody>
</table>
The following commands are available when a parcel icon is selected:

Table 2-3. Batch menu items related to a parcel

<table>
<thead>
<tr>
<th>Menu item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parcel Manual Opening Data</td>
<td>Opens the Parcel Manual Opening Data window which lets you specify Operator and Supervisor signatures as well as edit some inventory parameters, see chapter 4.3 Open/start parcel for more information.</td>
</tr>
<tr>
<td>Open Parcel</td>
<td>Changes status from assigned to opened parcel.</td>
</tr>
<tr>
<td>Start Parcel</td>
<td>Changes status from opened to started parcel. This menu item is only available when Open Parcel and Start Parcel are configured as separate commands, see Appendix A: Defaults for more information about the configuration.</td>
</tr>
<tr>
<td>Change Nominated</td>
<td>This menu item is enabled when the parcel is started. It opens the Parcel Nominated Value Data window which allows you to change the nominated value. Note that it can only be changed to a value higher than the transferred amount.</td>
</tr>
<tr>
<td>Pause/Resume Parcel</td>
<td>Pauses a parcel or resumes a paused parcel.</td>
</tr>
<tr>
<td>Enter Closing Data</td>
<td>Opens the Parcel Manual Closing Data window. In this window you can change parameters and choose signatures, see chapter 5.2 Parcel manual closing data for more information.</td>
</tr>
<tr>
<td>Close Parcel</td>
<td>Opens the Parcel Gauge Closing Data window. In this window you can check if the values are correct and press the Close and Print button to close the parcel.</td>
</tr>
<tr>
<td>Complete Parcel</td>
<td>Change status from closed to completed parcel. This menu item is only available when Close Parcel and Complete Parcel are configured as separate commands, see Appendix A: Defaults for more information about the configuration.</td>
</tr>
<tr>
<td>Release Tank</td>
<td>You can release a tank when the parcel is closed. This makes it possible to assign a tank to another parcel before it is completed. This menu item is only available when Close Parcel and Complete Parcel are configured as separate commands, see Appendix A: Defaults for more information.</td>
</tr>
<tr>
<td>Print &amp; Save Tickets</td>
<td>This menu item lets you print Official Opening Ticket, save Official Opening Ticket, print Official Delivery Ticket and save Official Delivery Ticket.</td>
</tr>
<tr>
<td>View Tickets</td>
<td>This menu item makes it possible to view the Official Delivery Ticket or a Recalculated Ticket.</td>
</tr>
<tr>
<td>Recalculate</td>
<td>This menu item makes it possible to recalculate a parcel in a completed batch. You can enter new opening and/or closing data for the parcel and confirm the new values, see chapter 6.1 Recalculation for more information.</td>
</tr>
<tr>
<td>Print Report</td>
<td>Prints a selected report.</td>
</tr>
<tr>
<td>Add Batch to Workspace</td>
<td>This menu option makes it possible to put batches which have been removed from workspace back (see Remove Batch from Workspace). Choose the desired batch by clicking the Select check box in the Add Batch to the Workspace window.</td>
</tr>
<tr>
<td>Expand all</td>
<td>Expands all items under a folder. This menu item is only available when clicking the right mouse button.</td>
</tr>
<tr>
<td>Collapse all</td>
<td>Collapses all items under a folder. This menu item is only available when clicking the right mouse button.</td>
</tr>
</tbody>
</table>
2.2.4 Tools Menu

The Tools menu includes the Tank Transfer Calculation option which may be used as a tool for planning new batches.

For information about the other Tools menu items, see TankMaster WinOpi User’s Guide [Ref. no. 303028 EN].
### 2.3 ICONS USED IN TANKMASTER

In the **Batches** tab the server, batches and parcels are represented by the following icons:

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Server Icon]</td>
<td>One server is running (on non-redundant system).</td>
</tr>
<tr>
<td>![Server Icon]</td>
<td>No connection with the server.</td>
</tr>
<tr>
<td>![Tank Icon]</td>
<td>Tank icon</td>
</tr>
<tr>
<td>![Batch Icon]</td>
<td>Batch icon</td>
</tr>
<tr>
<td>![Tank Icon]</td>
<td>Tank - assigned.</td>
</tr>
<tr>
<td>![Yellow Icon]</td>
<td>Yellow - assigned and opened.</td>
</tr>
<tr>
<td>![Yellow Icon]</td>
<td>Yellow - planned parcel, i.e. manually open data entered. The pipe direction shows whether shipping or receiving.</td>
</tr>
<tr>
<td>![Green Icon]</td>
<td>Green - opened parcel, i.e. opened data saved and opening ticket printed</td>
</tr>
<tr>
<td>![Red Icon]</td>
<td>Red - started parcel. The pipe of the icon shows if it is shipping or receiving.</td>
</tr>
<tr>
<td>![Red/Green Icon]</td>
<td>Red /Green - paused parcel.</td>
</tr>
<tr>
<td>![Red Icon]</td>
<td>Red - pre-closed parcel, i.e. manually closed data saved.</td>
</tr>
<tr>
<td>![Green/Brown Icon]</td>
<td>Green/Brown - closed parcel, i.e. closed data saved.</td>
</tr>
<tr>
<td>![Completed Icon]</td>
<td>Completed parcel.</td>
</tr>
</tbody>
</table>
Section 3 System Configuration

Before using the Batch Handling function you should make the following preparations:

- Configure the Batch Server
- Set up the Product Table
- Specify User accounts

### 3.1 BATCH SERVER CONFIGURATION

The Configure Batch Server window allows you to make customized settings of the batch handling process. These settings will affect the Batch server. A few settings in the Customize Parameters and Defaults tabs will affect the local client.

**Figure 3-1. Configure Batch Server window**

#### 3.1.1 Batch Units and Ranges

Select the measurement units for the batch. Only tanks using the same units can be assigned to a batch. Density and Temperature differences can be specified for verification of entered values and for checking measured open and close values.

For more information, see *Appendix A: Batch Units and Ranges.*
3.1.2 Defaults

The **Defaults** tab lets you define standard settings to be used for new batches. These settings can however be changed individually for each batch regardless of the default settings. Default settings can be specified for the following parameters:

- Nomination parameter (calculation of transferred volume will be based on this inventory parameter)
- Default movement type
- Default transfer mode
- Default server number

It is possible to enable the following options:

- *Open Parcel* and *Start Parcel* commands can be handled as a single operation by WinOpi. When disabled an opened parcel needs to be started manually by the operator. This option is enabled by default.
- *Close Parcel* and *Complete Parcel* commands can be handled as a single operation by WinOpi. When disabled a closed parcel needs to be completed manually by an operator. This option is enabled by default.
- *Batch Closing Data*, *Close Batch* and *Complete Batch* commands can be handled as a single operation by WinOpi. This means that the operator only needs to select the Close Batch command to close and complete a batch. If disabled the operator must enter closing data, print Batch Summary and complete the batch in separate commands. This option is enabled by default.
- Surveyor and Agent signature must be specified.
- To use previous signatures in opening and closing data windows by default.
- Suppress *Batch Messages* window auto pop up.

For more information, see *Appendix A: Defaults*.

3.1.3 Alert and Alarm Settings

A number of different alarms and alerts can be set to notify an operator that a transfer is coming to an end. The Batch Server can be configured to alert “X” minutes before a transfer is completed. Up to four alerts can be set. The parameter used for notification corresponds to the Nomination parameter defined in the Defaults tab.

For more information, see *Appendix A: Alert and Alarm Settings*.

3.1.4 Miscellaneous

It is possible to configure safety messages, batch lifetime, printer settings and export destination.

For more information, see *Appendix A: Miscellaneous*.

3.1.5 Configure Tank Servers

The Batch Server can connect to several Tank Servers.

For more information, see *Appendix A: Configure Tank Servers*.

3.1.6 Assign Tank Colors

Colors can be specified to show different states in the system.

For more information, see *Appendix A: Assign Tank Colors*.
3.1.7 **Customize Parameters**  

It is possible to configure the parameters to be displayed in the following batch windows:

- Parcel Gauge opening and starting data
- Parcel Gauge closing, completing and recalculating data
- Batch closing and completing data
- Batch status data
- Batch overview data (opened)
- Batch overview data (closed)

For more information, see *Appendix A: Customize Parameters*.

3.1.8 **Parcel settings**  

It is possible to apply information in the *Manual Closing Data* window to the *Manual Opening Data* window.

- Allow to change nominated value for a parcel after the parcel is started.
- Make it possible to apply Manual Closing Data to Manual Opening Data.
- Make it possible to print unofficial report when closing a parcel (this option can not be used if the two commands *Close Parcel* and *Complete Parcel* are setup to be handled as a single operation, see *Appendix A: Defaults* for more information).
- Make it possible to release a tank when closing a parcel (this option can not be used if the two commands *Close Parcel* and *Complete Parcel* are setup to be handled as a single operation, see *Appendix A: Defaults* for more information).

For more information, see *Appendix A: Parcel settings*.

3.1.9 **Batch Data**  

It is possible to create lists for Berth, Surveyor and Agent identification. These lists will be available in the *Batch Manual Data* window when creating a new batch.

For more information, see *Appendix A: Batch Data*.

3.1.10 **User Access Levels**  

It is possible to set authorization level for operator and supervisor signatures. Whenever these signatures are required in various batch dialogs such as the *Parcel Manual Opening Data* window, only User Accounts which correspond to the required Access Levels can be selected. Note that there must be User Accounts available that correspond to the required Access Levels, see *TankMaster WinOpi User’s Guide* [Ref. no. 303028 E.] for more information.

For more information, see *Appendix A: User Access Levels*. 
3.2 PRODUCT TABLE

It is necessary to create a product table and specify information about the products before you can create a batch. In the Batch Manual Data window (see chapter 4.1 Create new batch) you choose product and product code from drop-down lists. If you haven‘t created a product table there are no products or product codes available in the drop-down lists.

Product specific information is stored in the Product Table. The Product Table includes settling parameters, product codes and product types. It is possible to edit the default selection of products and also add new products to the table. For more information, see TankMaster WinOpi User’s Guide [Ref. no. 303028 EN].

3.3 USER ACCOUNTS

To run the TankMaster system, user accounts must be created with the appropriate access levels. In Parcel Manual Opening Data window (see chapter 4.3 Open/start parcel) you have to select signatures in order to open and start a parcel (the signature requirement can be disabled, see Appendix A: Defaults for more information).

Operator and Supervisor must be specified in the Configure Batch Server/User Access Levels window, because the Opening and Closing tickets have to be signed by both. See Appendix A: User Access Levels for more information about this configuration.

For more information about User Management, see TankMaster WinOpi User’s Guide [Ref. no. 303028 EN].

NOTE!

In Appendix A: Defaults it is possible to disable “Signatures are required where appropriate” option. This means that no signatures are required and are marked grey in the system.
Section 4 Batch Setup Phase

The Batch setup phase is divided into the following steps:

1. Create Batch
2. Assign Tanks
3. Enter parcel manual opening data
4. Open and Start Parcel

4.1 CREATE NEW BATCH

1. Click the right mouse button on the Batches icon in the workspace tree and choose New Batch.... The Batch Manual Data window will open.

![Batch Manual Data window](image)

2. The following parameters can be set:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Opening Date</td>
<td>2006-12-18 16:30:19</td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td>Crude Oil</td>
<td></td>
</tr>
<tr>
<td>Destination</td>
<td>Sweden</td>
<td></td>
</tr>
<tr>
<td>Delivered From</td>
<td>ORC</td>
<td></td>
</tr>
<tr>
<td>Delivered To</td>
<td>GBO</td>
<td></td>
</tr>
<tr>
<td>Order Number</td>
<td>12345</td>
<td></td>
</tr>
<tr>
<td>Task ID</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Ship Flag</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Movement Type</td>
<td>Shipping</td>
<td></td>
</tr>
<tr>
<td>Transfer Mode</td>
<td>DiffVolume</td>
<td></td>
</tr>
<tr>
<td>Product</td>
<td>Crude Oil</td>
<td></td>
</tr>
<tr>
<td>Product Code</td>
<td>CR_1</td>
<td></td>
</tr>
<tr>
<td>Nominated</td>
<td>10000</td>
<td>m3</td>
</tr>
<tr>
<td>Total Batch</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Disable Report Printing</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Berth</td>
<td>GBO</td>
<td></td>
</tr>
<tr>
<td>Agent</td>
<td>TI/SR</td>
<td></td>
</tr>
<tr>
<td>Surveyor</td>
<td>TMCC</td>
<td></td>
</tr>
</tbody>
</table>

Estimated Opening date: The date and time when the batch is planned to start. By default the Estimated Opening Date is set to the current date and time. The Estimated Opening Date can be set to a later date by clicking the Browse button. In this case the batch is automatically started at the specified date and time. Until the batch is started it is placed in the Planned Batches folder and when the batch is opened the batch icon in the TankMaster workspace is placed in the Opened Batches folder.

Description: Enter a description of the new Batch.

Destination: Enter the destination of the Batch.

Delivered From: Enter information about the ship, tank, pipeline or refinery you want to deliver from.
Delivered To | Enter information about the ship, tank, pipeline or refinery you want to deliver to.
---|---
Order Number | Enter the order number. This must be a numeric value.
Task ID | Enter the task identification (numeric or alphanumeric).
Ship Flag | Enter the nationality of the batch.
Movement type | Choose one of the four available Movement types:

- **Shipping** is a transfer from a tank to an external recipient.
- **Transfer** is an internal transfer from one tank to another.
- **Blend** is an internal transfer from several tanks to one tank.
- **Receiving** is a transfer from an external recipient to a tank.

Default value is Shipping. For more information about Movement type, see Appendix A: Defaults.

Transfer mode | Transfer mode specifies which parameter to be used for monitoring a batch. The inventory parameter to be measured (TOV, GOV, GSV, etc.) is specified in the Configure Batch Server/Defaults window, see Appendix A: Defaults.

There are five different Transfer modes:

- **Diff Volume** means that the batch comprises a specified amount of the product.
- **Close Volume** means that the batch stops at a certain product inventory volume.
- **Close Level** means that the batch stops at a certain product level.
- **Close Weight** means that the batch stops at a certain product inventory weight.
- **Diff Weight** means that the batch comprises a specified amount of the product.

Default value is Diff Volume. For more information about Transfer mode, see Appendix A: Defaults.

Product | Choose a product from the drop-down list. The available products are set up in the Product Table window, see chapter 3.2 Product Table and the TankMaster WinOpi User’s Guide [Ref. no. 303028 E] for more information.

Product Code | The available product codes depend on the chosen product. Product codes are specified in the Product Table window, see chapter 3.2 Product Table and TankMaster WinOpi User’s Guide [Ref. no. 303028 E] for more information.

Nominated | Enter the total product volume or weight to be transferred in the batch. When Transfer mode is Close Level it is possible to calculate the nominated value by choosing Tools>Tank Transfer Calculation, see Chapter 2.2.4 Tools Menu for more information.

Disable Report Printing | Reports are printed automatically by default. Choose Yes in the drop-down list to disable printing. Reports are stored in the Report folder until the Report Lifetime expires, see Appendix A: Miscellaneous for more information about Report Lifetime.

Berth | Choose the desired Berth from the drop-down list. Berth names are specified in the Configure Batch Server/Batch Data window. See section Appendix A: Batch Data for more information.

Agent | Choose the desired Agent from the drop-down list. The Agent company names are specified in the Configure Batch Server/Batch Data window. See section Appendix A: Batch Data for more information. Note that the requirement for Agent signatures can be disabled, see Appendix A: Defaults.

Surveyor | Choose the desired Surveyor from the drop-down list. The Surveyor company names are specified in the Configure Batch Server/Batch Data window, see Appendix A: Batch Data for more information. Note that the requirement for Surveyor can be disabled, see Appendix A: Defaults.
Enter the desired parameters and press **OK**. A **Proceed?** request appears:

3. This confirmation message needs to be acknowledged in order to proceed to the next step in the procedure. It will be displayed each time important data is to be saved in the system.

**NOTE!**
These messages are only displayed if the “Safety message” setting is enabled, see *Appendix A: Miscellaneous* for more information.

Press **Yes** to proceed, press **No** to abort. When pressing **Yes**, the new batch will appear in the **Opened Batches** folder in the workspace folder structure.

4. When the request **Do you want to assign tanks to the batch [batch-id] now?** appears, press **Yes** to continue, or press **No** to exit the setup and return to the WinOpi workspace.

5. For Movement Type **Shipment** or **Receive**, the **Assign Tanks** window will open. Otherwise the **Select Tanks** window will appear.
4.2 ASSIGN TANKS

1. Right-click on the desired batch and choose **Assign Tanks...**

2. Step 2 only applies for Movement Type **Transfer** or Movement Type **Blend**. In this case the **Assign Tanks** window is preceded by the **Select Tanks** window allowing you to select tanks before they are assigned to the batch.

<table>
<thead>
<tr>
<th>Movement Type</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blend</td>
<td>You can select several tanks as source tanks and one tank as target tank.</td>
</tr>
<tr>
<td>Transfer</td>
<td>You can select one tank as source tank and one tank as target tank.</td>
</tr>
</tbody>
</table>

**Figure 4-2. Select Tanks window**

**NOTE!**

For Movement Type Transfer, tanks with the selected product type (chosen in Batch Manual Data window) are shown in the All Tanks table.

The tables in the Select Tanks window have the following columns:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tank</td>
<td>The tank name to appear in all windows.</td>
</tr>
<tr>
<td>Product</td>
<td>Only available in All Tanks pane when Movement Type is Blend. Shows the product in the tank.</td>
</tr>
<tr>
<td>Rate</td>
<td>The current flow rate. Make sure the product level is stable before starting the batch transfer.</td>
</tr>
<tr>
<td>Time to Settle</td>
<td>Depends on product and level.</td>
</tr>
<tr>
<td>Assigned</td>
<td>Indicates if the tank is assigned to a batch.</td>
</tr>
<tr>
<td>Started</td>
<td>Indicates that the transfer is started for a batch with Batch &amp; Parcel number noted.</td>
</tr>
<tr>
<td>Level</td>
<td>Tank level.</td>
</tr>
<tr>
<td>Temperature</td>
<td>The average temperature in the tank.</td>
</tr>
</tbody>
</table>
a. Mark the desired source tank/tanks in the All Tanks list and click the -> button. The tank/tanks are moved to the Source tanks list.

b. Mark the desired target tank in the All Tanks list and click the -> button. The tank/tanks are moved to the Target Tanks list.

c. Click the OK button. The Assign Tanks window will appear.

3. The Assign Tanks window appears.

NOTE!
Depending on Movement Type and Transfer Mode the Assign Tanks window will present different amount of information, see the TankMaster WinOpi online help for more information.

4. There are many different versions of this window depending on the selected Movement Type and Transfer mode. These versions are described below.

Movement Type Shipping

Choose one tank by selecting the checkbox for the desired tank. Depending on the Transfer mode perform the following actions:

<table>
<thead>
<tr>
<th>Transfer mode</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diff Volume</td>
<td>Enter the volume to be transferred in the Nominated input field. Default value is Available Volume.</td>
</tr>
<tr>
<td>Close Volume</td>
<td>Enter nominated close volume in the Close input field. Default value is Min Volume.</td>
</tr>
<tr>
<td>Close Level</td>
<td>Enter nominated close level in the Close input field and alarm limit in the Set Point field (see Appendix A: Alert and Alarm Settings). Default value for Close is Min Level.</td>
</tr>
<tr>
<td>Diff Weight</td>
<td>Enter nominated weight in the Nominated input field. Default value is Available Weight.</td>
</tr>
<tr>
<td>Close Weight</td>
<td>Enter nominated close weight in the Close input field.</td>
</tr>
</tbody>
</table>
### Movement Type Receiving

Select the desired tank by selecting the corresponding checkbox. Depending on the Transfer mode the following information is entered:

<table>
<thead>
<tr>
<th>Transfer mode</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diff Volume</td>
<td>Enter volume to be transferred in the Nominated input field. Default value is Capacity Volume.</td>
</tr>
<tr>
<td>Close Volume</td>
<td>Enter nominated close volume in the Close input field. Default value is Max Volume (shown as Max).</td>
</tr>
<tr>
<td>Close Level</td>
<td>Enter nominated close level in the Close input field and alarm limit in the Set Point field. Default value for Close is set to Max Level.</td>
</tr>
<tr>
<td>Diff Weight</td>
<td>Enter nominated weight in the Nominated input field. Default value is Capacity Weight.</td>
</tr>
<tr>
<td>Close Weight</td>
<td>Enter nominated close weight in the Close input field. Default value is Max Weight.</td>
</tr>
</tbody>
</table>

### Movement Type Transfer

Select both source tank and target tank by selecting the corresponding checkboxes. If Close or Nominated value is entered for the source (target) tank, the corresponding Close or Nominated value for the target (source) tank will be calculated. Depending on the Transfer mode the following information is entered:

<table>
<thead>
<tr>
<th>Transfer mode</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diff Volume</td>
<td>Enter nominated volume in the Nominated input field for either source or target tank. Default value for source tank is set to Available Volume and Capacity Volume is set for target tank.</td>
</tr>
<tr>
<td>Close Volume</td>
<td>Enter nominated close volume for source/target tanks in the Close input field. When changing the close volume the tank nominated volume is automatically updated for that tank. Default value is Max Volume (shown as Max).</td>
</tr>
<tr>
<td>Close Level</td>
<td>Enter nominated close level in the Close input field and alarm limit for source or target tank in the Set Point field. Default value is Min for source tank or Max for target tank.</td>
</tr>
<tr>
<td>Diff Weight</td>
<td>Enter nominated weight in the Nominated input field. Default value is Available Weight for source tank and Capacity Weight for target tank.</td>
</tr>
<tr>
<td>Close Weight</td>
<td>Enter nominated close weight in the Close input field. Default value is Min Weight for source tank and Max Weight for target tank.</td>
</tr>
</tbody>
</table>

### Movement Type Blend

Select one or several source tanks and one target tank by selecting the checkbox for the corresponding tanks. When Close or Nominated value is entered for the source (target) tank the corresponding Close or Nominated value for the target (source) tank will be calculated. The total nominated volumes of the source tanks will be equal to the nominated volume of the target tank. Depending on the Transfer mode the following information is entered:
The color of the tanks represents different states, see Appendix A: Assign Tank Colors for more information.

**NOTE!**
You can not choose tanks which are already assigned to a batch and not released yet, or tanks associated with parcels that have already been started.

**NOTE!**
It is possible to calculate the nominated value by choosing Tools > Tank Transfer Calculator. See chapter 2.2.4 Tools Menu for more information about this function.

**NOTE!**
If the Nominated value exceeds the Pumpable value or the Batch Nominated value a warning will be displayed.

5. Press **OK** to confirm. The batch is now in the assigned state.

To change assigned tanks for a batch:
- a. Open the Assign Tanks window: click the right mouse button on the batch icon and choose **Assign Tanks**...
- b. To remove an assigned tank from a batch, clear the corresponding checkbox. To assign a new tank to the batch, select the corresponding checkbox.

**NOTE!**
It is only possible to remove tanks as long as the associated parcel is not started.
4.3 OPEN/START PARCEL

To open and start a parcel do the following:

1. Click the right mouse button on the requested tank icon in the Assigned folder and choose Parcel Manual Opening Data.... The Parcel Manual Opening Data window will open.

   ![Parcel Manual Opening Data window](image)

2. It is possible to edit the following data:

   **Parameters**
   
   All parameters marked in yellow, such as Free Water Level, Reference Density, etc., can be edited. Enter the parcel opening values.

   **Signatures**
   
   Select signatures from the Operator and Supervisor drop-down lists.

   Operator and a Supervisor signatures must be selected in order to open and start a parcel. The Operator and Supervisor specified for the batch transfer will appear on the Opening Ticket printed reports to be signed in order to open and close a batch transfer.

   The Batch Server system can be configured to accept Operator and Supervisor signatures corresponding to certain User Access Levels, see Appendix A: User Access Levels for more information.

   There must also be User Accounts available which correspond to the specified User Access Levels required for signing off a batch transfer, see User Management in the TankMaster WinOpi User’s Guide [Ref. no. 303028 E].

   **NOTE!**
   
   It is possible to disable signatures. WinOpi can also be configured to automatically suggest the previously used signatures in opening and closing data windows, see Appendix A: Defaults for more information.
Surveyor and Agent

The Surveyor and Agent information will appear in the Witnessed by field on the Opening Ticket printed reports.

The Surveyor and Agent company names presented in the Parcel Manual Opening Data window are selected in the Batch Manual Data window, see section Appendix A: Batch Data for more information.

Enter Surveyor Name, Agent Name, and Badge Number in the corresponding text boxes. Note that Company names are specified in the Batch Manual Data window, see chapter 4.1 Create new batch.

3. Press OK when ready.

4. Press Yes to continue when the Proceed? dialog appears. The new planned parcel will appear in the Assigned folder in the workspace tree.

5. To open the parcel, press Yes when the Continue to generate Opening Ticket? dialog appears. To return to the WinOpi workspace, press No.

6. The Parcel Gauge Opening Data window presents the current status of inventory information for the assigned tank:

![Parcel Gauge Opening Data window](image)

7. If the data in the Parcel Gauge Opening Data window is correct, press Print and Open. If the data in the window is incorrect, press Cancel to return to the workspace tree and enter correct data.

Figure 4-5. Parcel Gauge Opening Data window
NOTE!
It is possible to disable report printing, see Chapter 4.1 Create new batch. The reports will then be stored in the report folder in the workspace tree but not printed.

8. Press Yes to proceed.
   The parcel is now in Started Parcel state and will appear in the Started folder in the workspace tree. An Opening ticket will be printed. A pdf file of the Opening ticket is also generated which includes the existing data in the database.

NOTE!
After the parcel is started, it is not possible to change the Parcel Manual Opening Data.
Section 5 Delivery Phase

The Delivery phase is divided into the following steps:

1. Monitor and log batch running data
2. Enter parcel manual closing data
3. Close and Complete Parcel
4. Enter, Close and Complete Batch

5.1 MONITOR AND LOG BATCH RUNNING DATA

During the delivery phase, data is monitored and the system will continuously calculate the remaining time until the transfer is completed and the nominated volume is transferred.

5.1.1 Alarms

Messages are shown to inform the operator about current alarms related to the selected tank. Alerts are sent to the operator 30, 20, 10, and 5 minutes before the transfer is completed, see Appendix A: Alert and Alarm Settings for more information on how to configure these values.

Alarms are raised to inform the operator about conditions outside the normal values (see Alarm Handling in the TankMaster WinOpi User’s Guide [Ref. no. 303028 E] for more information):

- **Flow Rate Direction**
  Alarms when the liquid level rises if the tank is configured to deliver (e.g. Movement Type=Shipping, or other Movement Type where product is transferred from the tank).
  Alarms when the liquid level falls if the tank is configured to receive (e.g. Movement Type=Receiving, or other Movement Type where product is transferred to the tank).

- **Flow Rate**
  Alarms when the flow rate is above the high limit or below the low limit.

- **Level**
  Alarms when the product level is high or low, or when there is a measurement error.

- **Average Temperature**
  Alarms when the average temperature is high or low, or when there is a temperature measurement error.

- **Tank Parcel Transfer Completed**
  Alerts the operator at a specific NSV tank volume.

5.1.2 Batches overview

It is possible to get an overview of all open batches. Information about batches closed within the last 24 hours is also shown, see chapter 6.7 Batch Overview for more information.
5.1.3 Batch status

It is possible to get an overview of a specific batch and all included parcels. All information about the batch and parcels within the last 24 hours are also presented in this window. See chapter 6.6 View Batch Status for more information.

5.2 PARCEL MANUAL CLOSING DATA

1. To close a parcel, in the Started folder click the right mouse button on the corresponding parcel icon and choose Enter Closing data.... The Parcel Manual Closing Data window will open:

![Parcel Manual Closing Data window]

2. It is possible to edit the following data:

**Parameters**

All parameters marked in yellow, such as Free Water Level, Reference Density, etc., can be edited. Enter the parcel closing data.

**Signatures**

Operator and a Supervisor signatures must be selected in order to close and complete a parcel. The Operator and Supervisor specified for the batch transfer will appear on the Delivery Ticket printed reports to be signed in order to open and close a batch transfer.

The Batch Server system can be configured to accept Operator and Supervisor signatures corresponding to certain User Access Levels, see Appendix A: User Access Levels for more information.

There must also be User Accounts available which correspond to the specified User Access Levels required for signing off a batch transfer, see the User Management in the TankMaster WinOpi User’s Guide [Ref. no. 303028 E].

Select signatures from the Operator and Supervisor drop-down lists.
NOTE!
It is possible to disable signatures. WinOpi can also be configured to automatically suggest the previously used signatures in opening and closing data windows, see Appendix A: Defaults for more information.

Surveyor and Agent
The Surveyor and Agent information will appear in the Witnessed by field on the Opening Ticket printed reports.

The Surveyor and Agent company names presented in the Parcel Manual Closing Data window are selected in the Batch Manual Data window, see Appendix A: Batch Data for more information.

Enter Surveyor and Agent Name and Badge Number in the corresponding text boxes. Note that Company names can not be changed here since they are specified in the Batch Manual Data window, see chapter 4.1 Create new batch.

NOTE!
Which parameters to be displayed in the Property column in the Parcel Manual Closing Data window can be configured, see Appendix A: Customize Parameters for more information.

Apply to Manual Opening Data
To enable this option see Appendix A: Parcel settings for more information. This option may be useful if product sample data such as Reference Density, Sediment and Water (S&W) and Thermal Expansion Coefficient for Liquid (TECL) is not available when the transfer is started. Then the correct value can be entered later, in the Parcel Manual Closing Data window, after the transfer is started. The calculations of both Opening and Closing values for inventory volumes will be based on the new values.

3. Press OK when ready.
4. When the Continue to print Delivery Ticket? dialog appears, press Yes to open the Parcel Gauge Closing window. To return to the workspace, press No.
5.3 CLOSE AND COMPLETE

1. Click the right mouse button on the parcel icon in the Closed folder and choose Close Parcel.... The Parcel Gauge Closing Data window will open:

![Parcel Gauge Closing Data window](image)

The system checks whether nominated volume is transferred before closing the parcel. If the transfer has not reached the Nominated volume, the following message appears: **Nominated volume has not been transferred. Do you wish to continue?**. This system check can be disabled, see Appendix A: Miscellaneous.

**NOTE!**
The radio buttons for creating an official report, or an unofficial report, cannot be used if the two commands Close Parcel and Complete Parcel are combined to be handled as a single command, see Appendix A: Parcel settings. An unofficial report might be needed if the delivery ticket must be reviewed before the official report is created.
NOTE!
If the two commands Close Parcel and Complete Parcel are combined to be handled as a single command the check box **Release Tank** cannot be enabled, see Appendix A: Parcel settings for more information.

2. Verify that presented data is correct, and press **Print and Close**. Otherwise press **Cancel** to return to the workspace tree.

The parcel is now in **Completed Parcel** state.

3. A Delivery ticket in pdf format with the current database information is generated and printed. The Delivery ticket is available in the **Report** folder located in the corresponding batch folder in the workspace tree. Sign the printed Delivery ticket manually when approved.

NOTE!
After the parcel is completed, it is not possible to change the Parcel Manual Closing Data.

4. Click the right mouse button on the requested batch icon in the workspace tree and choose **Close Batch...**. The **Batch Closing Data** window will open:

Figure 5-3. Batch Closing Data window
5. If data is correct press **Print and Close**. If tanks are still assigned to the batch, a warning message will appear. In this case press **Cancel** to return to the workspace, complete the remaining parcels or unassign tanks which will not be used (deselect the tank in the Assign Tanks window) and return to the Batch Closing Data window.

If data in the Batch Closing Data window is incorrect, press **Cancel** to return to the workspace tree and enter correct data.

The batch is now in **Completed Batch** state and a **Batch Summary** report is printed. A pdf file of the Batch Summary report will also be generated and stored on disk. All batch reports are exported to the backup destinations specified in the **Configure Batch Server/Miscellaneous** window, see chapter **Appendix A: Miscellaneous**.

**NOTE!**
It is possible to configure the system to handle Close Batch and Complete Batch as separate commands, see Appendix A: Defaults for more information.
Section 6  General tasks

6.1 RECALCULATION

Recalculations may be performed on parcels in completed batches. To perform a recalculation, right-click on the parcel to be recalculated and select Recalculate... from the popup menu. The Change Delivery Ticket Input Data window is displayed:

The Change Delivery Ticket Input Data window lets you enter new input values for Level, Free Water Level, Avg Temperature, etc. for both opening and closing data. After having entered new data values, press the Recalculate and View button. Press Yes to continue when the Proceed? dialog opens.

The recalculated data appears in the Recalculated Delivery Ticket Data window which is automatically opened as soon as the recalculation is finished:
The recalculated data can either be confirmed (Print and Confirm button) or rejected. If the data is confirmed, the following happens:

- If there are previously confirmed recalculations a warning message pops up asking if the previously recalculated data should be deleted.
- All previously confirmed open/close values used for recalculation are overwritten.
- The parcel is marked as recalculated.
- Based on the changed data a new delivery ticket is generated and printed on the selected printer. The recalculated delivery ticket is marked as “recalculated”.
- The recalculated data is exported, and the parcel is confirmed. The new recalculated values are saved in the database.
6.2 SYSTEM MESSAGES

Whenever manual data is entered into the system, there will be a check whether data is missing or bad. If either a value is missing or if a value is entered outside a given range, a message will appear.

Whenever data is saved, a **Proceed?** message appears. To continue and to save current data, press **Yes**. This message can be suppressed, see Appendix A: Miscellaneous for more information on how to enable or disable safety messages.

![Figure 6-3. Proceed message](image)

6.3 PRINT UNOFFICIAL BATCH SUMMARY REPORT

**NOTE!**
An Unofficial Batch Summary Report can be printed if the two commands Close Parcel and Complete Parcel are setup to be handled as separate commands.

It is possible to print an unofficial batch summary report before the batch is completed. This report is used for checking and identifying missing data.

To print an unofficial batch summary report before the batch is completed, right-click the batch in the workspace and select **Unofficial batch summary reports**.

6.4 PRINT UNOFFICIAL DELIVERY TICKET

**NOTE!**
An Unofficial Delivery Ticket can be printed if the two commands Close Parcel and Complete Parcel are setup to be handled as separate commands.

When a parcel is closed, but before it is completed, unofficial delivery tickets can be viewed on screen and printed, to check if there is any missing data.

To print an unofficial delivery ticket, right-click the parcel in the workspace and select **Unofficial Delivery Tickets**, or select the **Unofficial Report** check box in the Parcel Closing Data window.

**NOTE!**
All unofficial tickets are be marked with a “Unofficial” waterstamp.
6.5 VIEW BATCH MESSAGES

Batch messages appear in the Active Batch Messages window when important events occur that the operator needs to be aware of.

To open the Active Batch Messages window, click the right mouse button on the requested batch icon in the workspace tree and choose Batch Messages:

![Active Batch Messages window](image)

To dismiss one or several messages from the Active Messages window, hold down the Ctrl key when selecting messages and press Dismiss Message. The logged messages, both active and inactive, are available for each batch in the View Batch Status window.
6.6 VIEW BATCH STATUS

To open the Batch Status window for the desired batch, click the right mouse button on the batch icon and choose Batch Status...

![Batch Status window](image)

The Batch Status window presents data and messages for the selected batch. The Discrepancy field is used for Movement Type Blend and Transfer, and shows the difference between transferred volumes from the source and to the target tanks, respectively.

The Batch Status window also shows batch messages and information about the included parcels. Parameters to be shown for the included parcels can be configured in the Configure Batch Server window, see section Appendix A: Customize Parameters.
6.7 BATCH OVERVIEW

The *Batches Overview* window provides an overview of open batches, and batches closed within the number of days specified in the *Configure Batch Server/Miscellaneous* window (see section *Appendix A: Miscellaneous*).

In the *Configure Batch Server* window you can specify which parameters to be shown in *Batches Overview*, see section *Appendix A: Customize Parameters* for more information.

To open the *Batches Overview* window, click the right mouse button on the *Batches* icon and choose *Batches Overview*.

![Image of Batches Overview window showing open and closed batches]

6.8 RELEASE TANK

The *Release* menu item is available when a parcel is in *Closed* state and the tank is not previously released. Releasing a tank means that it can be assigned to another parcel before the first parcel is completed. A tank can be released either via the *Batches*->*Release* menu item, or by selecting the *Release Tank* check box in the *Parcel Gauge Closing* data window, see chapter 5.3 Close and complete.

**NOTE!**
The *Release Tank* check box can only be used if Close Parcel and Complete Parcel are handled as separate commands.
6.9 PRINT TICKET AND BATCH SUMMARY REPORT

To print Opening tickets, Delivery Tickets or Batch Summary Reports open the **Report** folder under the requested batch, click the right mouse button on a ticket or report and choose **Print report**.

![Figure 6-7. Each batch has a Report folder](image)

**NOTE!**
All reprinted tickets are marked “Reprint” unless this option is disabled, see **Appendix A: Parcel settings**.

6.10 CONNECT BATCH SERVER

**NOTE!**
The Connect Batch Server menu item is only enabled if the Batch Server is disconnected.

Click the right mouse button on the Batches icon in the workspace. Choose the **Connect Batch Server** option from the menu list. The **Select Server** window appears:

![Figure 6-8. Select Server window](image)

The **Select Server** window lets you connect to a disconnected Batch Server:

1. Enter the name of the server or click on the **Browse** button to select the server.
2. Click **OK** to connect.

**NOTE!**
The Local Batch Server will be connected by default when the system starts the first time.
6.11 REDUNDANCY

Click on the right mouse button on the Batches icon in the work tree and choose Redundancy... The Redundancy window will appear.

Figure 6-9. Redundancy window

![Redundancy Window]

Click the Change button and browse the network to find the desired backup server.

**NOTE!**
The Local server is by default set as primary server when the system starts.

6.12 DISCONNECT BATCH SERVER

To disconnect from the current batch server, click the right mouse button on the Batches icon in the work tree and choose Disconnect Batch Server. Press Yes to proceed when the Proceed? dialog appears.

Batches will be the only available object in the Batches tab. The only menu item enabled is the Connect Batch Server.

6.13 STATUS

Click on the right mouse button on the Batches icon in the work tree and choose Status... The OPC Server Information window will appear:

Figure 6-10. OPC Server Information window.

![OPC Server Information Window]

The OPC Server Information window shows information about the connected Batch Server.
Appendix A  Configure Batch Server

A.1 BATCH UNITS AND RANGES

Click the right mouse button on the Batches icon in the work tree and choose Configure Batch Server... The Configure Batch Server window will open. Choose the Batch Unit and Ranges tab.

Figure A-1. Configure Batch Server - Batch Units and Ranges

The Batch Units and Ranges window lets you specify the desired measurement units.

A.1.1 Batch System Units

Choose the desired measurement units from the drop-down list:

- **Level**: Choose between meter and foot. Meter is the default value.
- **Temperature**: Choose between Celsius and Farenheit. Celsius is the default value.
- **Volume**: Choose between m3, bbl., gal and l. m3 is the default value.
- **Density**: Choose between kg/m3, deg API, 60/60 deg F, lb./gal (US). Kg/m3 is the default value.
- **Weight**: Choose between ton(m), ton(s), ton(l). Ton(m) is the default value.
A.1.2 Ranges and Limits

Enter maximum and minimum value of Density and Temperature Difference. The **Density Max** and **Density Min** values specify the upper and lower limits of manually entered Reference Density. Density values outside the specified range will not be accepted by TankMaster. If, for example, the Reference Density is changed to a value above the **Density Max** in the *Parcel Manual Closing Data* window, you will not be able to proceed to the next step.

When a parcel is closed, the product temperature is compared with the temperature at the time when the parcel was opened. If the temperature difference is outside the specified limits given by **Max Temp Diff** or **Min Temp Diff**, a warning message appears in the *Active Batch Messages* window. See **chapter 5.2 Parcel manual closing data** for more information.
A.2 ALERT AND ALARM SETTINGS

Click the right mouse button on the Batches icon in the work tree and choose Configure Batch Server... The Configure Batch Server window will open. Choose the Alert and Alarm Settings tab:

Parameter used for notification shows the Nomination parameter defined in the Defaults tab, see Appendix A: Defaults.

A number of alarms can be set to notify an operator that a batch transfer is coming to an end:

- The Batch Server can be configured to alert “X” minutes before a transfer is completed. Up to four alerts can be set.
- The Tank Alarm alerts when the specified amount of Net Standard Volume (NSV) remains to be transferred in order to finish the transfer.
- The Level Limit alarm can be used for Transfer Mode = Close Level to calculate the default Set Point value. The Set Point alarm alerts when the product level is within the specified distance from the Close Level value. Default value is 0,010 m.
- For internal transfers, i.e. Movement Type Blend and Transfer, the Discrepancy Limit can be set to alert if the amount of product transferred from the source tanks differs from the amount transferred to the target tank. The parameter used for notification corresponds to the Nomination parameter defined in the Defaults tab.

NOTE!
Sound alarm can be enabled (via PC speaker) for batch messages.
A.3 DEFAULTS

Click the right mouse button on the Batches icon in the work tree and choose the Configure Batch Server... option. The Configure Batch Server window will open. Choose the Alert and Alarm Settings tab.

Figure A-3. Configure Batch Server - Defaults

In the Default tab you can view all default settings for the system.

Nomination parameter
Different volume and weight parameters can be used for notification of a batch transfer, see Tank Inventory in the TankMaster WinOpi User’s Guide [Ref. no. 303028 EN] for more information on inventory calculations. Volume: Gross Observed Volume (GOV), Gross Standard Volume (GSV), Net Standard Volume (NSV). Weight: Weight in Vacuum (WIV), Weight in Air (WIA).

Default Movement Type
The default Movement Type appears as the pre-defined choice in the Batch Manual Data window. It is possible though, to choose another Movement Type in the Batch Manual Data window if the default selection is not the desired choice.

See chapter 4.1 Create new batch for more information about the Batch Manual Data window.

Default Transfer Mode
The default Transfer Mode appears as the pre-defined choice in the Batch Manual Data window. It is possible though, to choose another Transfer Mode in the Batch Manual Data window if the default selection is not the desired choice.

See chapter 4.1 Create new batch for more information about the Batch Manual Data window.
Appendix A. Configure Batch Server

Consider Open Parcel... When this option is enabled, the Open Parcel and Start Parcel commands are handled as a single operation by WinOpi. When disabled an opened parcel needs to be started manually by the operator.

This option is enabled by default.

Consider Close Parcel... When this option is enabled, the Close Parcel and Complete Parcel commands are handled as a single operation by WinOpi. When disabled a closed parcel needs to be completed manually by an operator.

This option is enabled by default.

Consider Batch Closing Data... When this option is enabled, the Enter Closing Data, Close Batch and Complete Batch commands are handled as a single operation by WinOpi. This means that the operator only needs to select the Close Batch command to close and complete a batch. If disabled the operator must enter closing data, print Batch Summary and complete the batch in separate commands.

This option is enabled by default.

Signatures are required... If this option is selected, signature data must be specified for a batch. See chapter 4.3 Open/start parcel for more information.

Use last used signature... This command applies to dialogues where signatures must be specified. By selecting this option, WinOpi automatically displays the signatures used last time the dialogue was open.

Default Server Number The Default server number is used to guarantee that the batch id and report names will be unique even if there are many Batch Servers in the plant. Default value is 1.

The server number is included in the automatically generated Batch ID.
A.4 MISCELLANEOUS

Click the right mouse button on the Batches icon in the work tree and choose **Configure Batch Server**... The **Configure Batch Server** window will open. Choose the **Miscellaneous** tab:

![Configure Batch Server - Miscellaneous](image)

**Safety messages**

A message can be displayed that allows the operator to proceed or abort whenever data is to be stored.

It is also possible to enable the *Close the transfer before it is completed* message that is shown when the operator wants to stop a parcel before the nominated volume is transferred.

The safety messages are enabled by default.

*See chapter Section 4 Batch Setup Phase and chapter Section 5 Delivery Phase for information on how to use these messages.*

**Batch lifetime**

The number of days a batch is stored in the database can be specified by the operator. The default value is 1 day.

**View Closed Batches In Batches Overview**

The batch server controls the number of days a batch is visible in the **Batches Overview** window.

**View Closed Batches In Workspace**

The local client controls the number of days a batch is visible in the Closed Batches folder in the WinOpi workspace.

**Printer setting**

Specifies printers to be used for reports and recalculated data.
<table>
<thead>
<tr>
<th><strong>Export destination</strong></th>
<th>Backup copies of the reports are stored in backup folders specified in the <em>Backup path</em> field and the <em>Export path</em> field. The same backup files are stored in the two destination folders. Thus you can save backup files both locally and on a remote server in a Local Area Network.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Report Lifetime</strong></td>
<td>The number of days a report is stored on disk. The <em>Export Destination/Backup path</em> field specifies where backup copies are stored.</td>
</tr>
</tbody>
</table>
A.5 CONFIGURE TANK SERVERS

Click the right mouse button on the Batches icon in the work tree and choose Configure Batch Server... to open the Configure Batch Server window. Choose the Configure Tank Servers tab:

Figure A-5. Configure Batch Server - Configure Tank Servers

The Configure Tank Servers tab allows you to set up a list of Tank Servers for the Batch Server to connect to. If a tank server is not included in the list, the associated tanks cannot be used for batch transfers handled by the current batch server.

NOTE!
After any changes, the Batch Server must be restarted in order to activate the configuration.
A.6 ASSIGN TANK COLORS

Click the right mouse button on the Batches icon in the work tree and choose Configure Batch Server.... The Configure Batch Server window will open. Choose the Assign Tank Colors tab:

Figure A-6. Configure Batch Server - Assign Tank Colors

The Assign Tank Colors tab allows you to select colors for the different tank states.

To specify a color, simply click the Color button at the corresponding tank state and use the standard Windows Select Color dialog.

The Tank States Colors are used in the Select Tank window and Assign Tank window, see chapter 4.2 Assign Tanks.

Note that changes of the color settings for Flow Rate do not affect the Flow Rate color settings under Tools>Options/Color (see also the WinOpi User’s Guide).
A.7 CUSTOMIZE PARAMETERS

Click the right mouse button on the Batches icon in the work tree and choose Configure Batch Server... The Configure Batch Server window will open. Choose the Customize Parameters tab:

The Customize Parameters window allows you to configure the parameters to be displayed in different batch windows:

1. Select the desired window from the Parameters Set drop-down list.
2. Select the check boxes which correspond to the parameters you prefer for the selected window.
3. Click the OK button.
A.8 PARCEL SETTINGS

Click the right mouse button on the Batches icon in the work tree and choose Configure Batch Server... The Configure Batch Server window will open. Choose the Parcel Settings tab:

Figure A-8. Configure Batch Server - Parcel settings

The Parcel Settings window allows you to define parameters to be displayed in different batch windows.

Allow to change nominated value

Makes it possible to change the nominated volume for a parcel which is already started.

Make it possible to apply Manual Closing Data to Manual Opening Data

This option is useful if product sample data such as Reference Density, Sediment and Water (S&W) and Thermal Expansion Coefficient for Liquid (TECL), is not available before the transfer is started. Then the correct value can be entered later, in the Parcel Manual Closing Data window (see chapter 5.2 Parcel manual closing data), after the transfer is started. Calculations of both Opening and Closing values for inventory volumes will be based on the new inventory values.

Make it possible to print unofficial report when closing a parcel

This option lets you choose whether an Official or an Unofficial report shall be printed from the Parcel Gauge Closing Data window (see chapter 5.3 Close and complete). A parcel can not be completed until an official report is printed.

NOTE!

This option can only be used if the two commands Close Parcel and Complete Parcel are setup to be handled as separate commands in the batch procedure. In the standard batch process they are combined to a single command, see Appendix A: Defaults for more information.
Make it possible to release a tank when closing a parcel

This option is normally disabled. When enabled, a tank can be released, i.e. it can be assigned to another batch, even if the first batch the tank was assigned to is still open.

NOTE!
This option can only be used if the two commands Close Parcel and Complete Parcel are setup to be handled as separate commands in the batch procedure. In the standard batch process they are combined to a single command, see Appendix A: Defaults for more information.

Add “Reprint” watermark to all stored reports.

This option is used to distinguish the official report, i.e. the first printed report, from copies. When this option is enabled all reports, except the first one, are marked “Reprint”.

A.9 BATCH DATA

Click on the right mouse button on the Batches icon in the work tree and choose **Configure Batch Server**... The **Configure Batch Server** window will open. Choose the **Batch Data** tab:

![Configure Batch Server - Batch Data](image)

The **Batch Data** window allows you to create lists for Berth, Surveyor and Agent identification. These lists will be available in the **Batch Manual Data** window when creating a new batch. To add a new item:

1. Place the cursor in one of the input fields for Berths, Surveyors or Agents.
2. Type a name.
3. Click the **Add** button.
4. When finished, click the **OK** button to save the lists and close the window.

**NOTE!**
The Agent and Surveyor fields in the Batch manual Data window can be disabled see Appendix A: Defaults for more information.
A.10 USER ACCESS LEVELS

Click the right mouse button on the Batches icon in the work tree and choose **Configure Batch Server...** The **Configure Batch Server** window will open. Choose the **User Access Levels** tab.

Figure A-10. Configure Batch Server - User Access Level

The **User Access Levels** window allows you to set authorization level for operator and supervisor signatures. Whenever these signatures are required in various batch dialogs such as the **Parcel Manual Opening Data** window (see **chapter 4.3 Open/start parcel**) only user accounts which correspond to the required Access Levels can be selected.

**NOTE!**

There must be User Accounts available that correspond to the required Access Levels, see **chapter 3.3 User accounts** for more information.