RAVAS

RAVAS Data Collector

Operations Guide

Version: 2.1.9

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About This Guide

This guide provides operational instructions for the RAVAS Data Collector. The first part of the guide describes all non-administrative tasks a user can perform. The second part of the guide describes the administrative tasks an administrator can perform.

Document Conventions

Convention	Description
Bold	Identifies elements on a screen.
ThinFont	Identifies storage locations, like the location where to install the software.
UPPERCASE	Identifies keyboard keys.
Italic	Identifies variables for which you must enter a value.
`Monospace font`	Identifies messages displayed by the system.
`{}`	Indicates a set of choices from which you must choose one. Type only the information inside the curly braces. Do not type the {} symbols
`|`	Separates two mutually exclusive choices in a syntax line. Type one of these choices. Do not type the | symbol.
`[]`	Indicates one or more options. Type only the information inside the square brackets. Do not type the [] symbols.
…	Indicates that you can type multiple options pf the same type. Type only the information/ Do not type the ellipsis (…).

Online Information

RAVAS RDC/RIS Forum

You can find Frequently Asked Questions, Manuals and Videos Material and even the possibility to report Incidents & Bugs, see https://www.esense-it.nl/forums/forumdisplay.php?fid=1

General Overview RAVAS Data Collector

The RAVAS Data Collector service is running and listening (default on port 5555) for any incoming Push Data Record (PDR) messages of one of the following message types:

- Initial Record (INI), the moment a RAVAS Scale is started it will push this record to the RAVAS Data Collector (RDC) to establish and test the connection between the RAVAS Scale and the RDC.
- Weight Data Record (WDR), every weight recording is pushed to the RAVAS Data Collector using this format.

Happy Flow

Figure 1 describes the complete message flow for a Weight Data Record (WDR) message send by a RAVAS Scale to the RAVAS Data Collector.

The RAVAS Scale and the RAVAS Data Collector (RDC) are connected via a network. The RAVAS Scale has a wireless connection via Wi-Fi and the RDC has either a cable connection to the network or is configured in the same way as the RAVAS Scale via Wi-Fi.

It's very important that the RAVAS Data Collector is installed on a (virtual)machine having a static IP-address, see *RAVAS Data Collector – Installation Guide*. So that the RAVAS Scale can be configured with this IP-address in order to push all weight recordings to the RDC.

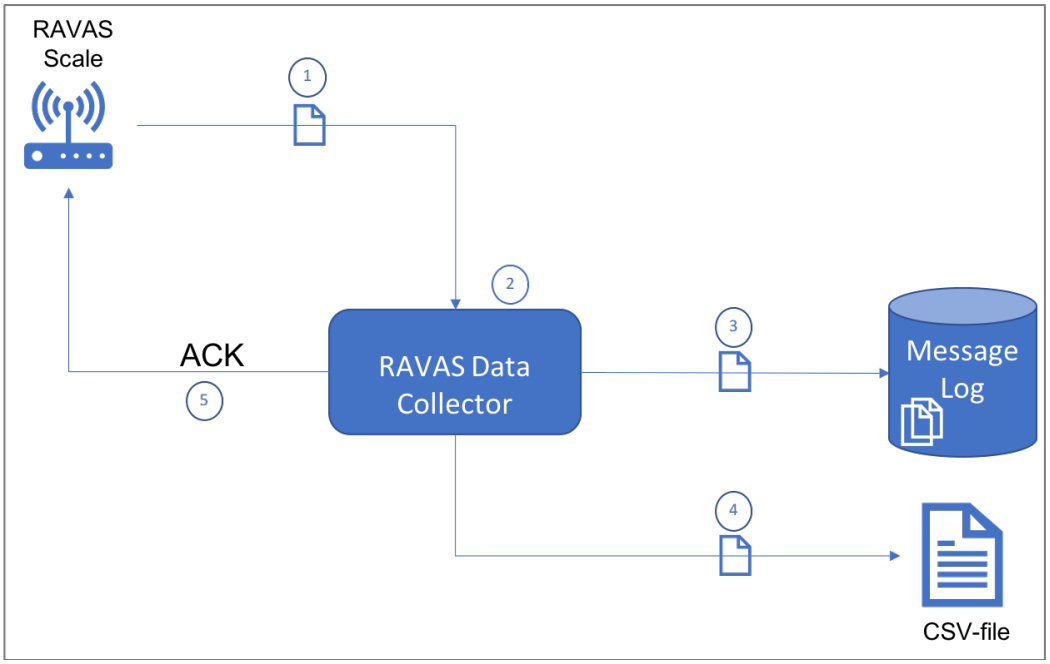

Figure 1 Process flow for successful WDR message transmission

The RDC is listening for incoming messages at the PDR Protocol port, default this is port 5555.

Process steps:

1. The RAVAS scale has recorded a weight and the operator sends the WDR message to the RDC by pressing a button on the RAVAS Scale. At startup time the RAVAS scale already has established the connection with the RDC and pressing the button results in formatting the WDR message with the registered weight information.
2. The RDC receives the WDR message and verifies:
    a. If all required information is present and if it's specified in the correct format.
    b. If anyone has tempered the message while it was in transit from the RAVAS Scale to the RDC.
3. The received WDR message together with some meta data is persisted in the message log, see *Message Log*
4. The content of the WDR message is written to **one** CSV file containing all received WDR message content of the current day or it's written to a CSV file only containing the WDR message content of a single RAVAS Scale for the current day, see *Scales Management*
5. The RDC returns an ACK to the RAVAS Scale indicating the successful execution.

Error scenario's

In everyday use of the RAVAS Data Collector errors will occur. In those scenario's it's important that the RDC is able to handle these situations without losing any WDR message.

Validation Error

Figure 2 shows how the RDC handles Validation Errors, meaning that the received WDR message from a RAVAS Scale does apply to the required definition of a WDR record as a result of an incorrect formatting of the software on the RAVAS Scale or as a result of anyone having tempered the WDR message while it was in transition from the RAVAS Scale to the RDC.

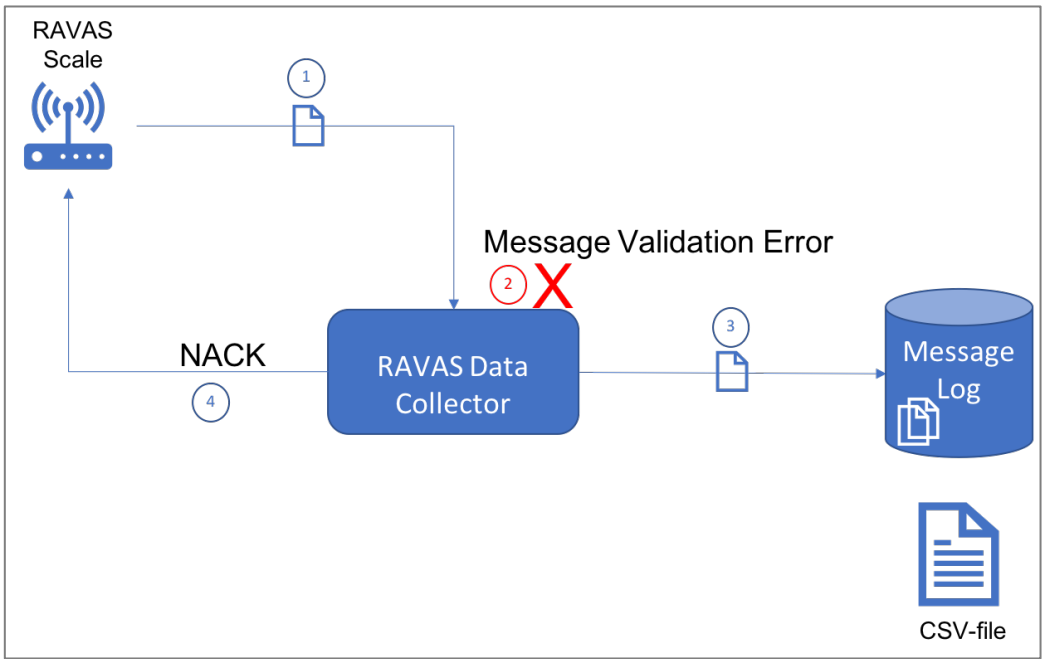

Figure 2 Process flow in case of Validation Error

The RDC performs the following processing steps in the case that it encounters a validation error:

1. The RAVAS scale has recorded a weight and the operator sends the WDR message to the RDC by pressing a button on the RAVAS Scale. At startup time the RAVAS scale already has established the connection with the RDC and pressing the button results in formatting the WDR message with the registered weight information.
2. The RDC receives the WDR message and verifies:
    a. If all required information is present and if it's specified in the correct format.
    b. If anyone has tempered the message while it was in transit from the RAVAS Scale to the RDC.

    In the case the verification indicates an error an error message is constructed that will be registered together with the received WDR message in the message log.

3. The received WDR message together with some meta data and in this scenario the error message are persisted in the message log, see *Message Log*
4. The RDC returns a NACK to the RAVAS Scale indicating a failure in the processing of the WDR message.

Duplicate Message

Figure 3 shows how the RDC handles a Duplicate Message. The communication between the RAVAS Scale and the RDC can fail as a result of a connection timeout or failure. The Wi-Fi connection may not be available or the signal is too weak to have a reliable communication. In such a scenario it may happen that the message is received and processed by the RDC but the ACKnowledgement is never received by the RAVAS Scale.

The RAVAS Scale will retry the delivery of that message and the RDC will notice the duplicate and will not write the WDR record to the CSV-file.

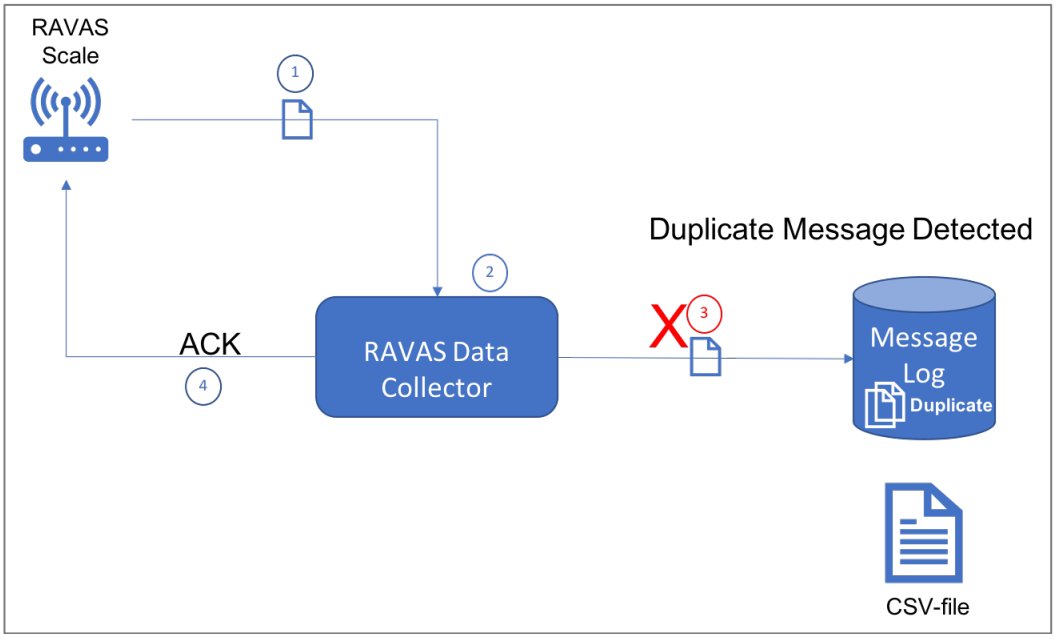

Figure 3 Process flow in case of Duplicate Message

In the case that a duplicate message is sent the following processing steps are being executed by the RDC:

1. The RAVAS scale has recorded a weight and the operator sends the WDR message to the RDC by pressing a button on the RAVAS Scale. At startup time the RAVAS scale already has established the connection with the RDC and pressing the button results in formatting the WDR message with the registered weight information.
2. The RDC receives the WDR message and verifies:
    a. If all required information is present and if it's specified in the correct format.
    b. If anyone has tempered the message while it was in transit from the RAVAS Scale to the RDC.
3. The received WDR message together with some meta data is persisted in the message log, see *Message Log*, but before it will be persisted the RDC verifies if there is already a message persisted with the current message ID and send by the current RAVAS Scale. If that's true, then the message is persisted but with a DUPLICATE status.
4. The content of the WDR message is NOT written a CSV file because this is already done. The RDC returns an ACK to the RAVAS Scale indicating a successful execution to prevent the WDR message from being sent again.

Operational Tasks

This section describes the following operational controls of the RAVAS Data Collector:

- **Dashboard**
- **Message Log**
- **File Manager**
- **User Profile**
- **Change Language**
- **Help**

Dashboard

The moment a user logs into the RDC Console the Dashboard is shown, see Figure 4. The RDC Dashboard provides an overview of the status of the RAVAS Data Collector (RDC). The following status information is shown on the dashboard:

- **RDC Ports**, messages are received through a port, see *General Overview RAVAS Data Collector*;
- **Scales**, messages are being sent by RAVAS scales;
- **License Notifications**, if the software license for the RDC needs attention, then the notification messages are shown on this page. See *License Management* for more information.

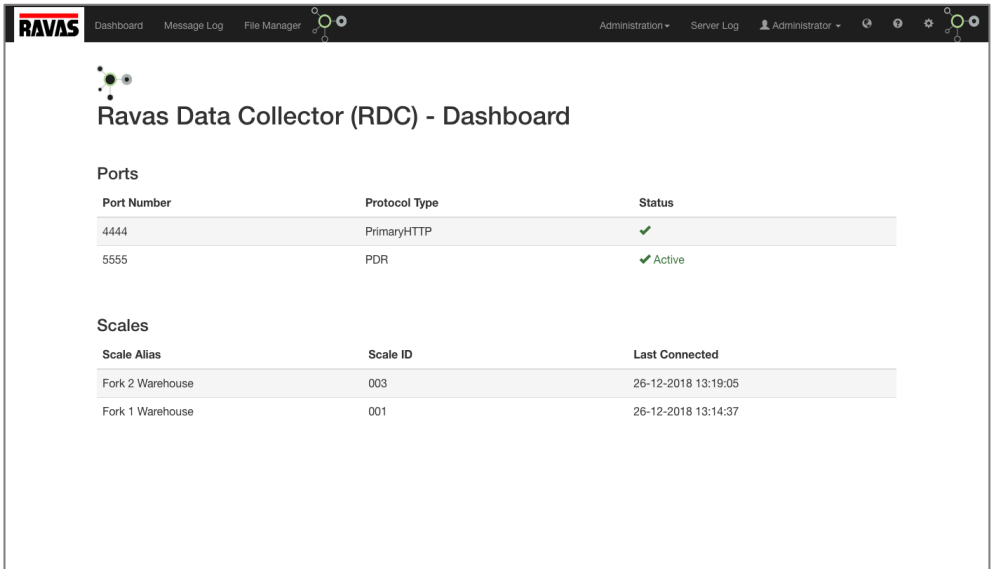

Figure 4 RDC Dashboard

RDC Ports

The RDC receives messages through ports. A port is uniquely identified by a number and supports a specific protocol. This is an agreement on the format and the way messages are being exchanged between a RAVAS Scale and the RDC.

It's like two people talking to each other. They need to have a mutual understanding of the language and grammar before they can communicate and exchange information.

The RDC Dashboard displays all the configured ports and indicates if they are actively listening for incoming messages, **Status** = *Active*. If it's not listening for incoming message then the **Status** = *Inactive*.

Scales

Each RAVAS Scale is configured with a numeric identifier. This identifier is sent with every weight data recording message to the RDC. The numeric identifier does not tell much about the RAVAS Scale. Therefor the RDC introduced an **Scale Alias**, a logical name describing the RAVAS Scale, which has to be unique over all configured scales.

The RDC Dashboard displays the timestamp of the last message send by the RAVAS Scale to the RDC. According to Figure 4 the RAVAS Scale *Fork 1 Warehouse* **Last Connected** at the *29th of June 2018 at 13:06:56* and *Fork 2 Warehouse* never connected to the RDC.

License Notifications

The RDC Dashboard displays every License notification that requires an action, for example Figure 5 indicates that there is no license configured. The *Administrator* of the RDC needs to enter the license information, see *License Management*.

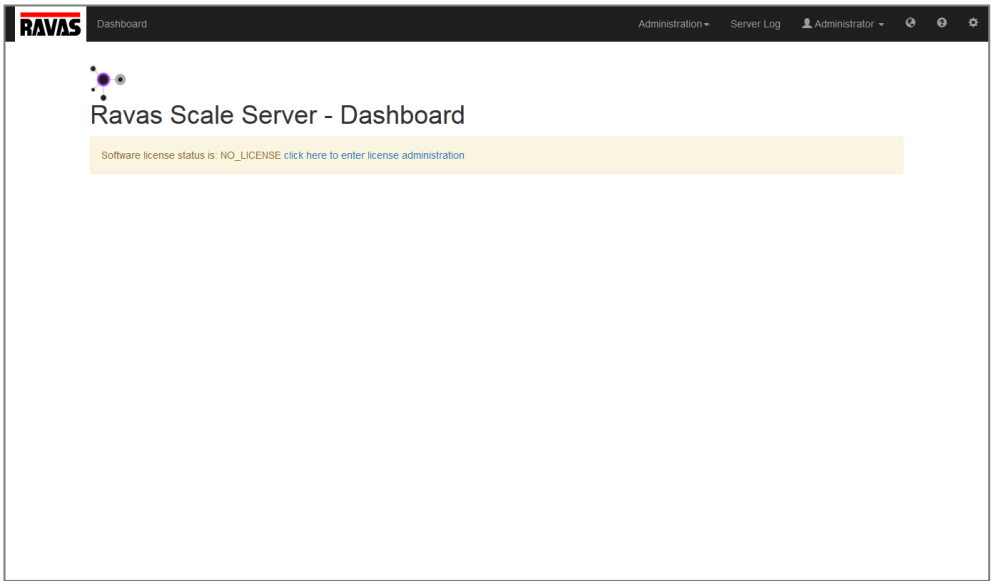

Figure 5 Dashboard with a License Notification

Message Log

The Message Log shows all messages received by the RAVAS Data Collector (RDC), see Figure 6.

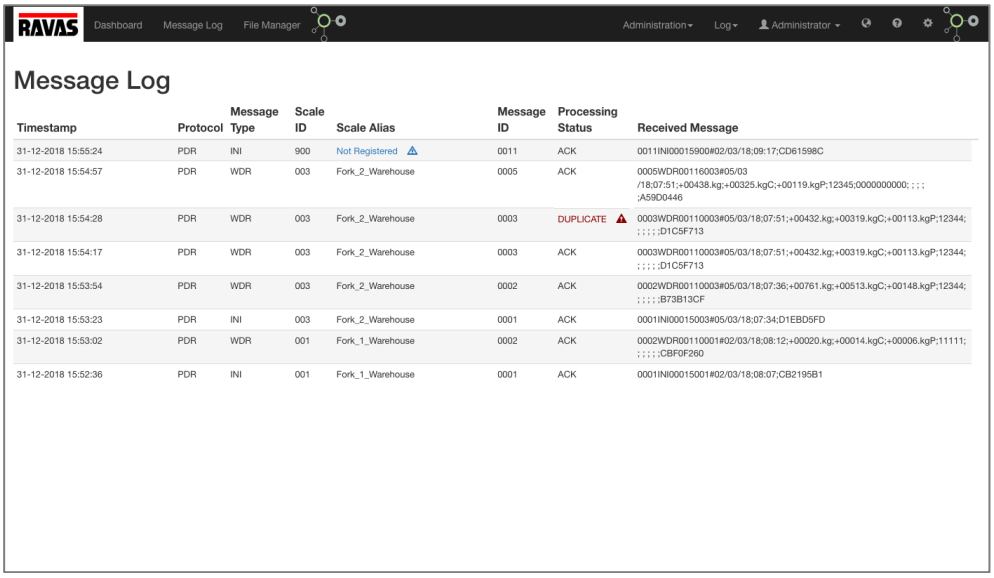

Figure 6 Message Log

The following data is persisted in the message log on receipt of any message:

- **Timestamp**, the timestamp of the receipt of the message by the RDC. It's explicitly not the timestamp of the weight registration. The latter is written into the CSV file.
- **Protocol**, the protocol of the message. The RDC is currently only supporting the Push Data Record (*PDR*) protocol. The PDR protocol consists of the following two types of message *INI* and *WDR*. The *INI* message is sent by a RAVAS Scale the moment it establishes the connection to the RDC when it started up. The *WDR* message type is used to exchange the weight registrations done by the RAVAS Scale.
- **Message Type**, the message type of the message. The possible values are *INI* | *WDR*. As stated at the previous bullet. The *INI* is sent when the RAVAS Scale is started up and establishes the connection with the RDC. The *WDR* message type is used to exchange the weight registrations done by the RAVAS Scale.
- **Scale ID**, the numeric identifier of the RAVAS Scale which is configured in the RAVAS Scale.
- **Scale Alias**, a logical name describing which RAVAS Scale has send the message. How to configure an alias is described in *Scales Management*.
- **Message ID**, the unique of the received message, which is unique for the RAVAS Scale that send the message. The **Message ID** in combination with the **Scale ID** is used to determine a duplicate message, see Duplicate Message.

- **Processing Status**, the outcome of processing the reveived message. Possible values:
  - *ACK*, the processing was successful.
  - *NACK*, the processing was not successful
  - *DUPLICATE*, duplicate message is detected but ACK is returned to the RAVAS Scale.

  If the status is *NACK* or *DUPLICATE* an message describing the error is shown when hoovering over the status field.

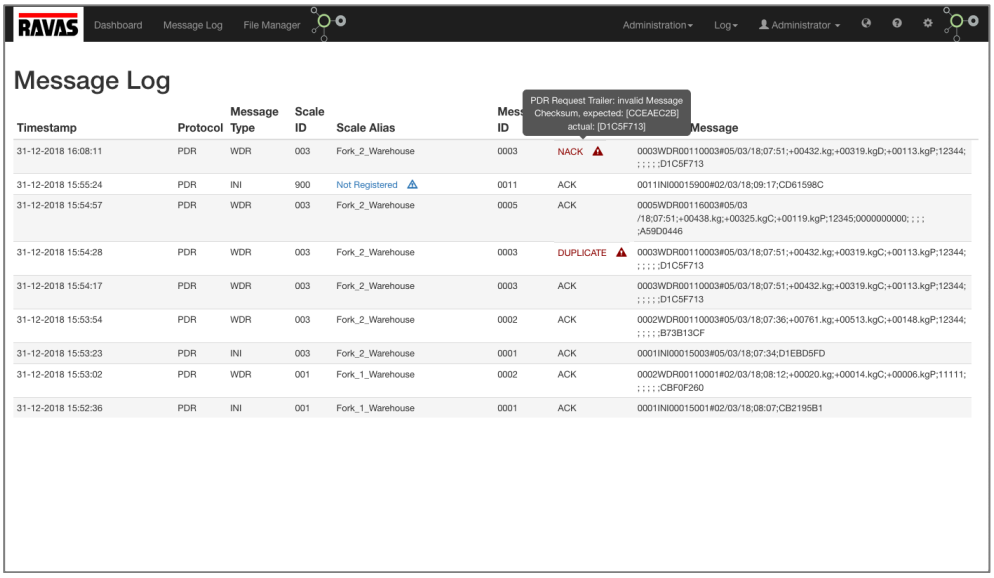

Figure 7 Error message when processing status is NACK

- **Received Message**, the complete content of the received message.

File Manager

The File Manager provides an overview of all created CSV files containing the weight recordings of RAVAS Scales. Each listed CSV file can be downloaded and deleted from here.

Download CSV-File

To download a CSV File perform the following steps:

- Click the **File Manager** menu
- Click DOWNLOAD, see Figure 8

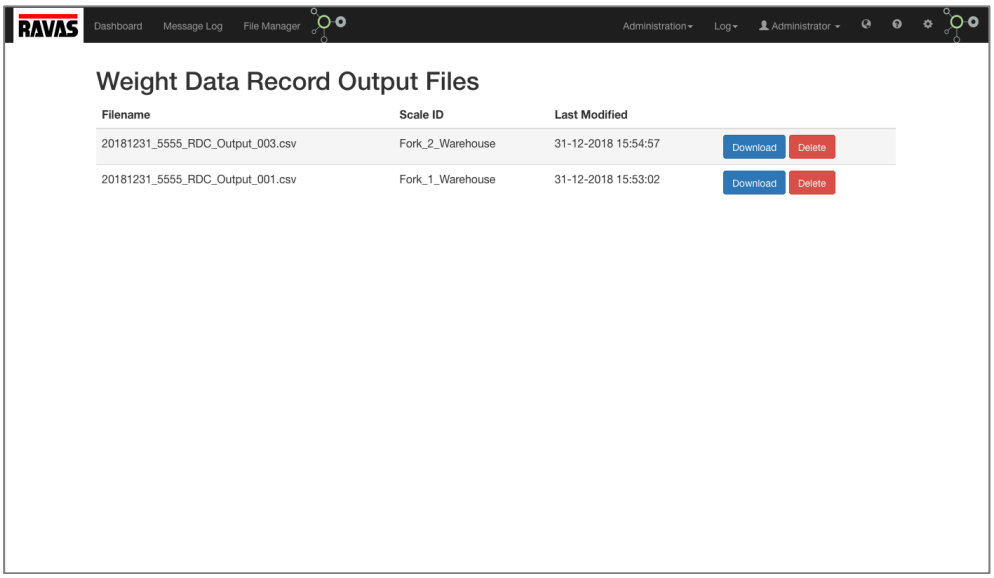

Figure 8 File Manager Overview

- A popup window will appear asking if you will open or download the file. When choosing to open the file you can select the editor of your choice, like for example Microsoft Excel.

Delete CSV-File

To delete a CSV File perform the following steps:

- Click the **File Manager** menu
- Click DELETE, see Figure 8

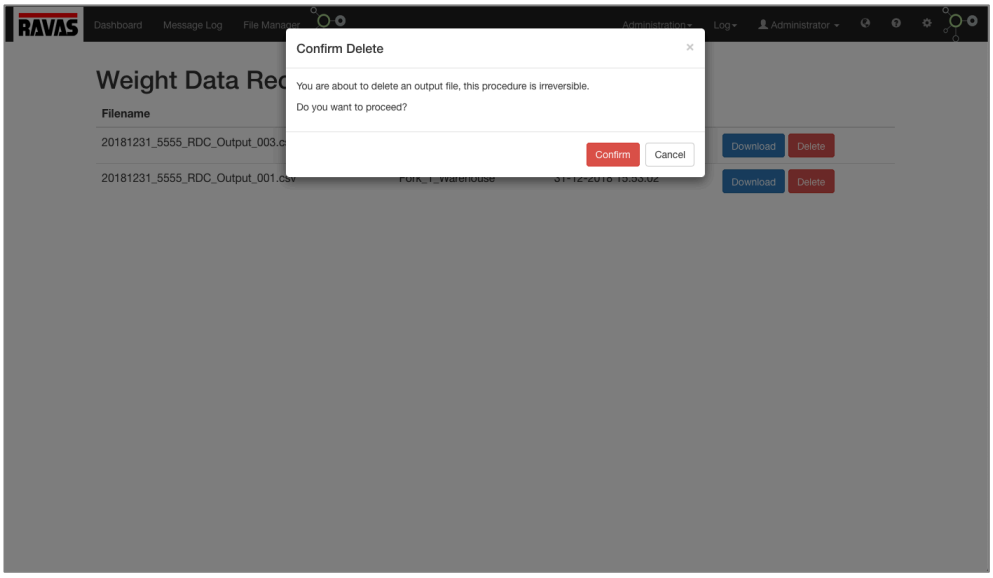

Figure 9 Confirm delete of CSV file

- Click CONFIRM if you want to proceed with the delete, see Figure 9 or click CANCEL to return to the overview (Figure 8)

User Profile

To access RDC Console you need to login with a **Username** and **Password.**

The default administrator **Username** is *Administrator* and the **Password** is *manage*.

Logout

Through the **User** menu a user can **Logout** when he is logged in.

Change Password

To change your password.

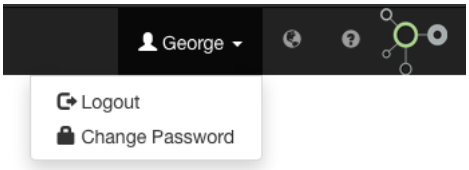

Figure 10 Regular User Profile

Change Language

The default language of the RDC Console is English. You can change the default language by clicking the language menu and selecting one of the following languages, see Figure 11

- *English*
- *Dutch*
- *German*
- *French*

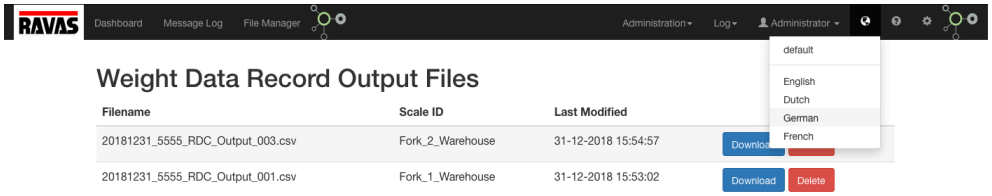

Figure 11 Change language menu

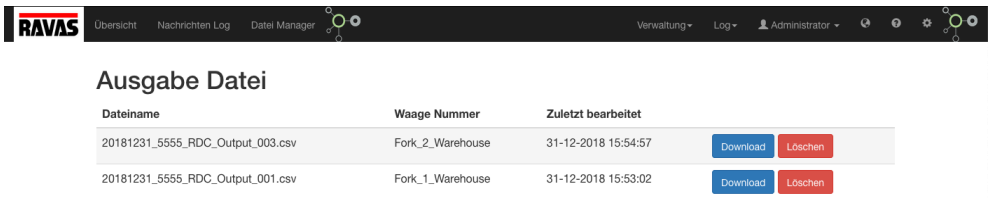

Figure 12 Changed language from English to German

Help

The help menu provides access to several resources that provide information on how to use the RAVAS Data Collector.

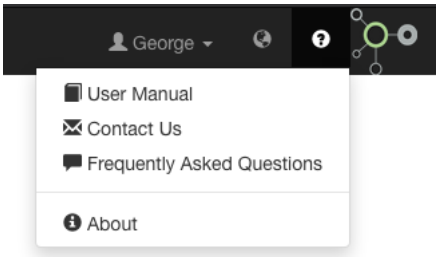

Figure 13 Help Menu

User Manual

This manual can be accessed through the **User Manual** menu item of the help menu.

Contact Us

Through the **Contact Us** menu item you can sent an email to the RAVAS Data Collector Support team.

Frequently Asked Questions

The **Frequently Asked Questions** menu provides a link to the RAVAS RDC/RIS Forum. On this forum one can:

- Access the **Frequently Asked Questions** to read questions and answers from other RDC users or even post your own question.
- Access the **Manuals and Video Material** to download a published document on the RDC and even video material demonstrating different functions of the RDC.
- Report **Incidents & Bugs** to the RDC development team. They will respond as soon as possible to you to provide you help you out.
- Report **Suggestions** to improve the RAVAS Data Collector so that it will better suit your needs.

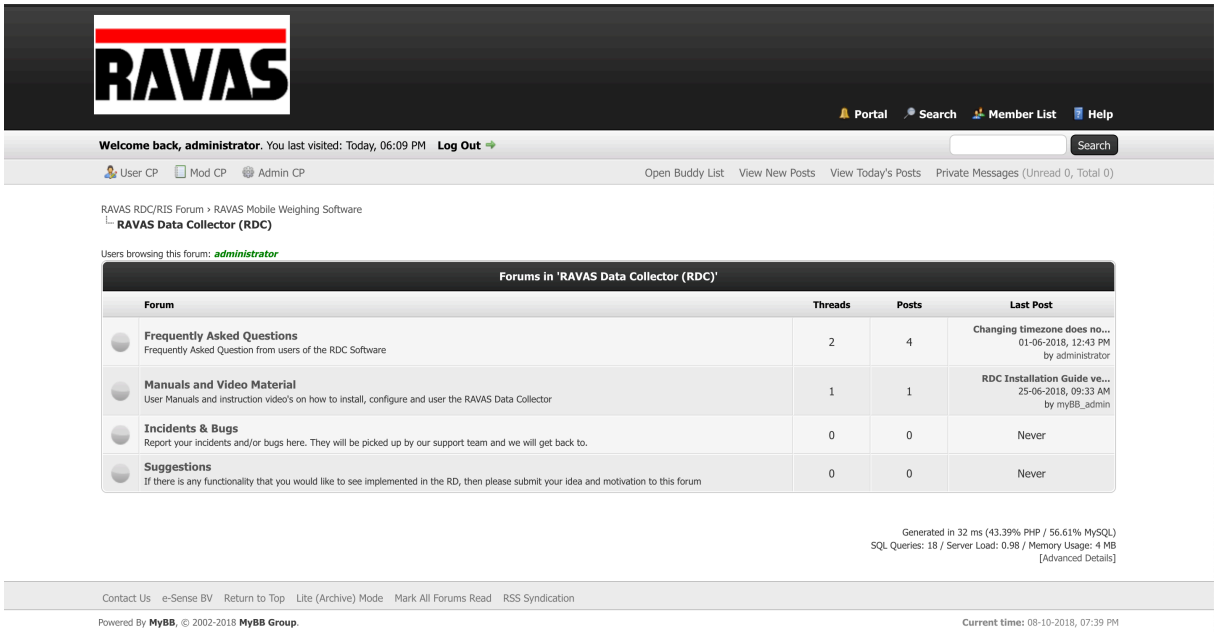

Figure 14 The RAVAS RDC/RIS Forum

If you do NOT have a user-id to access the forum, you can register yourself at the forum and a login and password will be sent to you.

About

The about page displays the version of the installed RAVAS Data Collector.

Furthermore the page displays the IP-address(es) of the RDC. This information is useful when configuring the host on the RAVAS Scale to which the RAVAS Scale should send the WDR messages, see Figure 15.

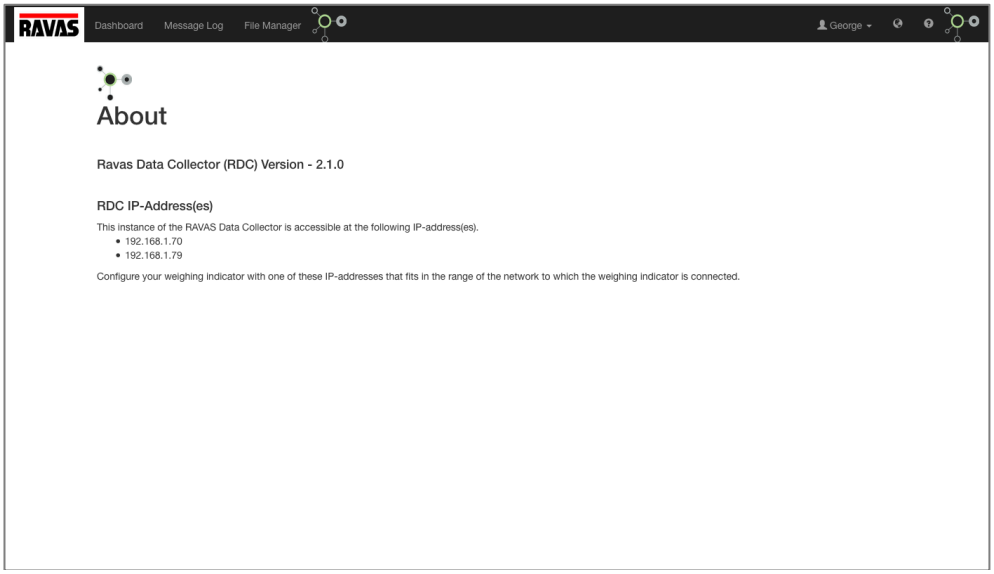

Figure 15 RDC About Page

Administrative Tasks

This section describes the following Administrative tasks for the RAVAS Data Collector:

- ❑ **User Management**
- ❑ **License Management**
- ❑ **Scales Management**
- ❑ **Ports Management**
- ❑ **Server Parameters**
- ❑ **Clean-up Message Log**
- ❑ **Consult Log**
- ❑ **Change Logging Level Server Log**
- ❑ **Restart/Stop Server**

*To perform an Administrative task, you need to be logged in to the RDC as **Administrator**.*

User Management

As an Administrator you can create new users for using the RDC Console.

User Management provides the following functionality:

- Show Registered Users
- Create User
- Update User
- Delete User

The different functions are described in the following sections.

Show Registered Users

To see which users are registered, perform the following step:

- Click the **Administration/User Management** menu (Figure 16)

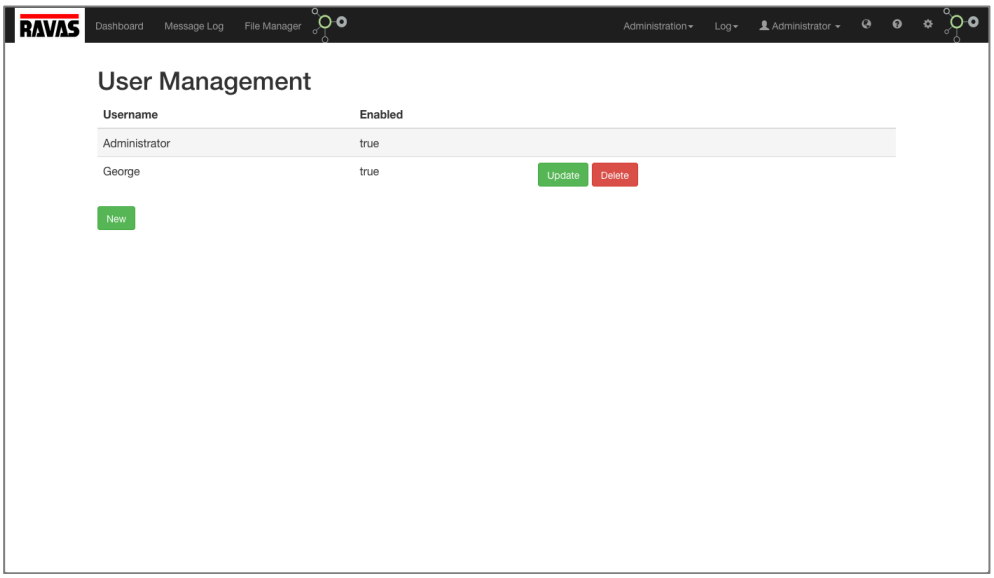

Figure 16 User Management - Registered Users Overview

Add User

To add a new user, perform the following steps:

- Click the **Administration/User Management** menu (Figure 16)
- Click NEW, see Figure 17

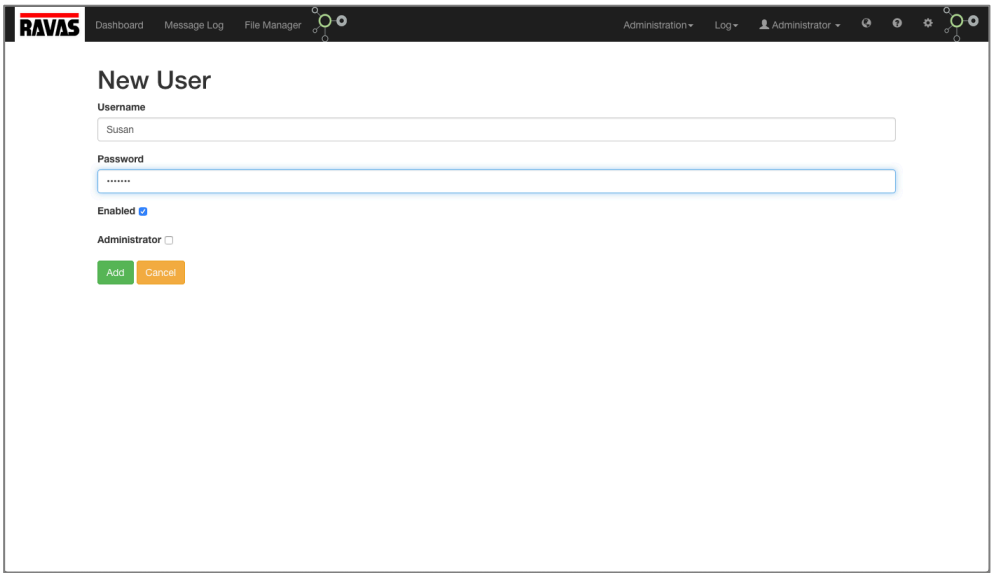

Figure 17 New User

- Enter the necessary user data:
  - **Username**, the username has to be unique.
  - **Password**, there are no restrictions on the length and/or content of the password.
  - **Enabled**, should the user be enabled for logging in to the RDC Console or not (yet). Checked is yes
  - **Administrator**, should the user have Administrator privileges. Checked is yes
- Click ADD

Update User

The following attributes can be updated for any user except for the *Administrator.*

> *It's not possible to update any attribute of or disable the **Administrator** user!*

To update an existing user, perform the following steps:

- Click the **Administration/User Management** menu (Figure 16)
- Click UPDATE for the user see Figure 18

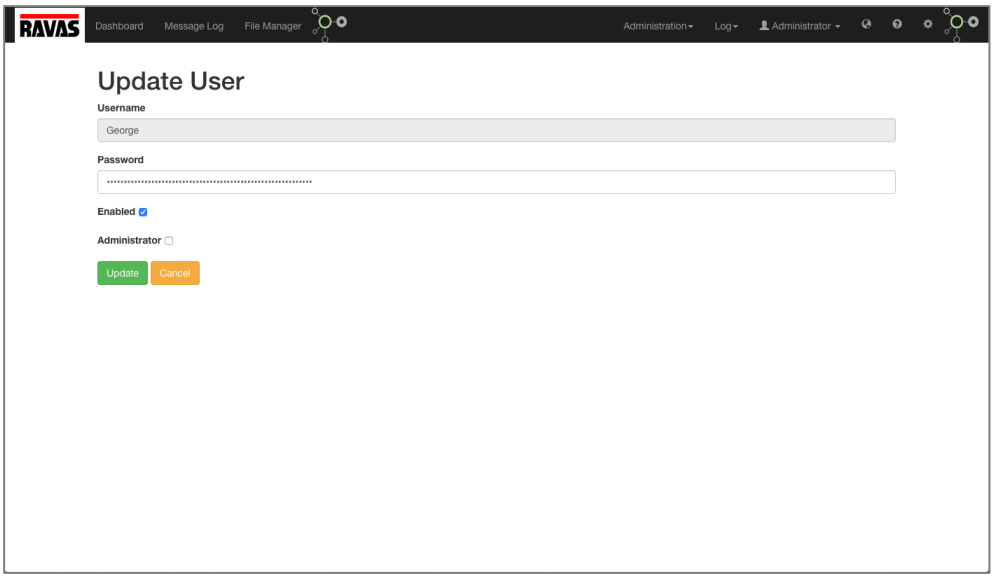

Figure 18 Update User

- Update user data:
  - **Password**, there are no restrictions on the length and/or content of the password.
  - **Enabled**, should the user be enabled for logging in to the RDC Console or not (yet). Checked is yes
  - **Administrator**, should the user have Administrator privileges. Checked is yes
- Click UPDATE

Delete User

> *It's not possible to delete the **Administrator** user!*

To delete a user, perform the following steps:

- Click the **Administration/User Management** menu (Figure 16)
- Click DELETE for the user you would like to delete, see Figure 19

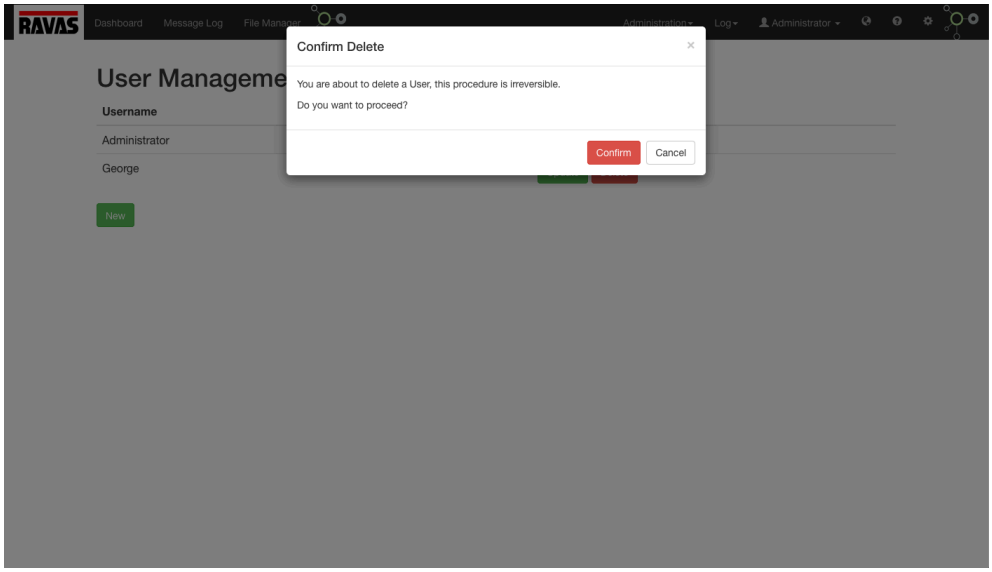

Figure 19 Delete User

- Click CONFIRM if you want to proceed with the delete, see Figure 19 or click CANCEL to return to the overview (Figure 16)

License Management

The RAVAS Data Collector requires a valid license for accepting messages from RAVAS Scales. This license is sent to you by your RAVAS Sales Representative.

License Management consists of the following functionality:

- Show license information
- Activate license by RDC software over internet
- Manual license activation

Show License Information

To show information about the current activated license perform the following steps:

- Click **Administration/License Management**
- The License Administration page is shown, see Figure 20

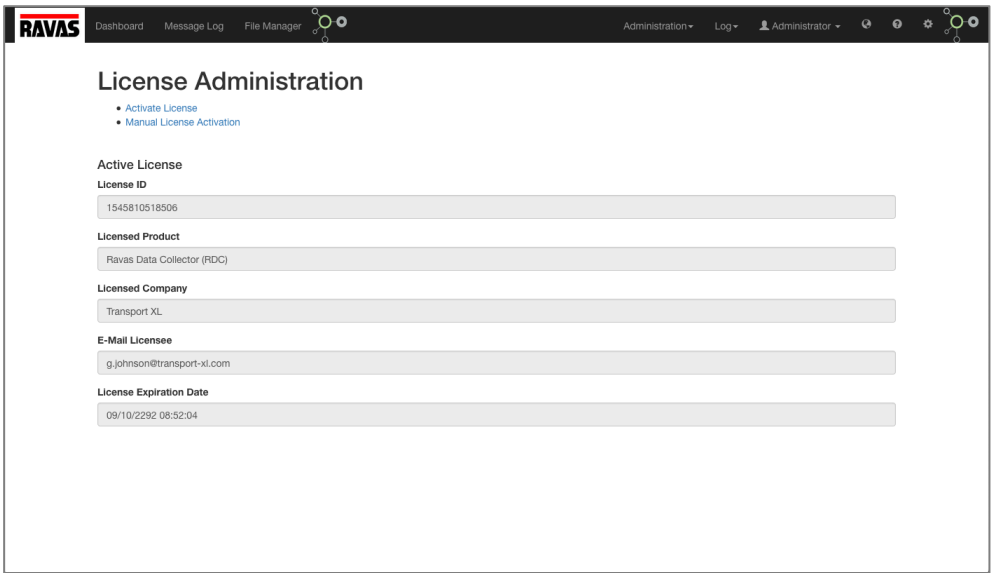

Figure 20 License information

Activate License by RDC software over Internet

The RDC license can be activated from the RAVAS Scale Server software if the pc/server has access to the internet, by performing the following steps:

- Click **Administration/License Management**
- The License Administration page is shown, see Figure 20
- Click **Activate License**
- The license activation page is shown, see Figure 21

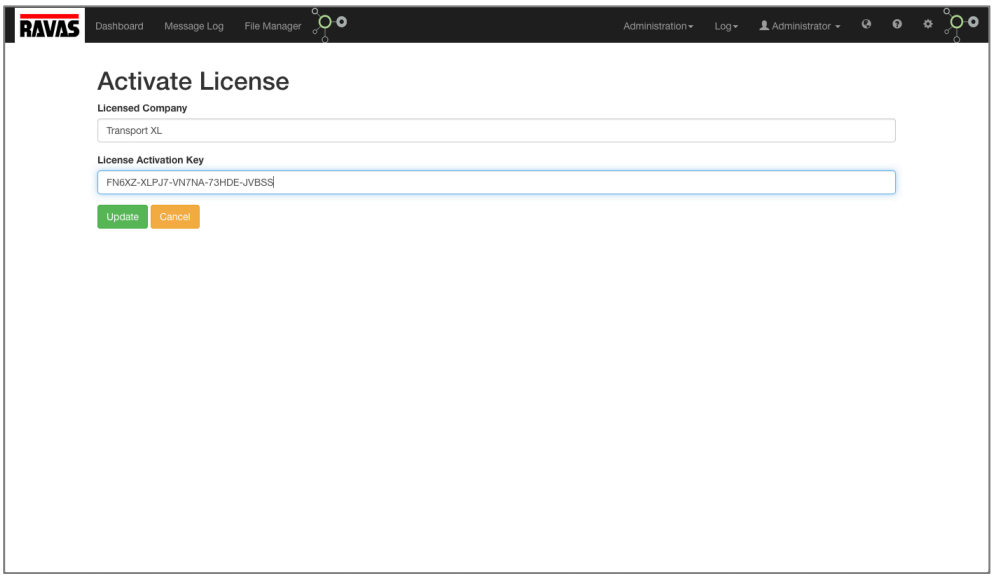

Figure 21 License Activation page

- Enter the following information:
  - **Licensed Company** – *your company name*
  - **License Activation Key** – *the activation key*

  The license activation key is contained in a file provided to you by your RAVAS Sales representative with the following file naming syntax: *license number*.l4j

- Click UPDATE
- The License Administration page is shown, see *Show License* Information

Manual License Activation

The RDC license can be activated manually from any pc/server having internet access and a browser, by performing the following steps:

- Start Browser
- Type in the URL: http://*server-ip-address*:4444/login

- Click **Administration/License Management**
- The License Administration page is shown, see Figure 20
- Click **Manual License Activation**
- The manual license activation page is shown, see Figure 22

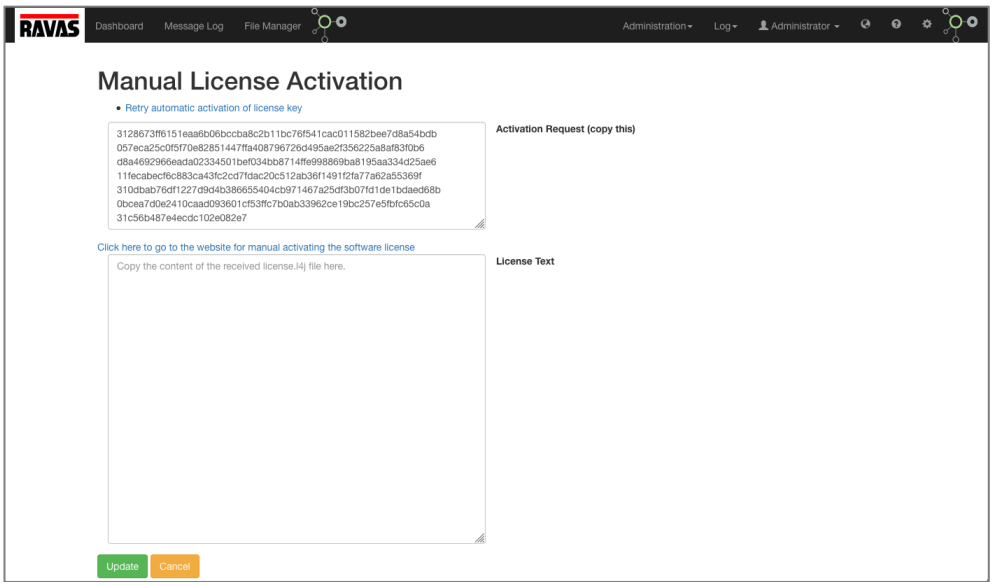

Figure 22 Manual License Activation page

- Copy the content of **Activation Request (copy this);**
- Click CLICK HERE TO GO TO THE WEBSITE FOR MANUAL ACTIVATING THE RDC LICENSE, see Figure 23. On this website (http://online.license4j.com/e/manualactivation), you must paste the copied data in the **License Activation Request Text:** field
- Click SUBMIT

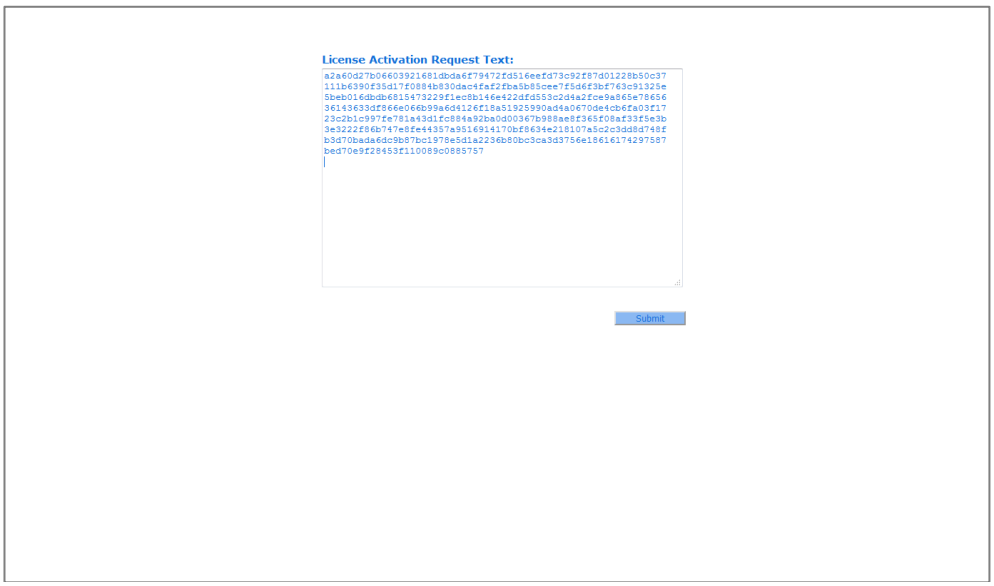

Figure 23 Website for manual activation of RDC License

- A file is created License.l4j
- The content of this file is needs to be copied into the **License Text** field of the Manual License Activation page, see Figure 24

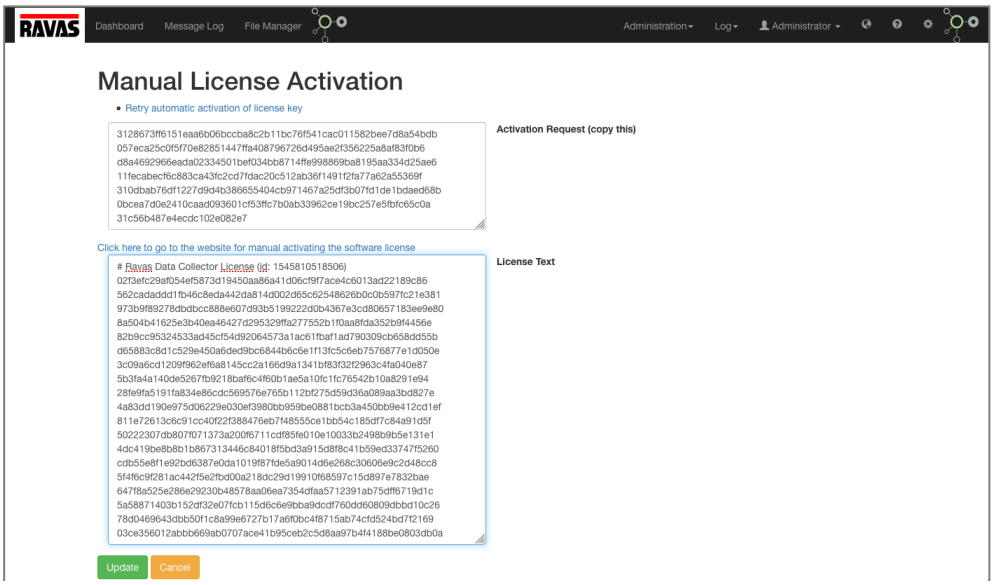

Figure 24 Manual License Activation Page - Enter License Text

The RDC is now able to receive messages from RAVAS Scales.

Scales Management

Scales Management enables the registration of RAVAS Scale aliases so that the RDC Console can refer to a RAVAS Scale by using a **Scale Alias** instead of the **Scale ID** communicated by the RAVAS Scale when sending messages.

Scales Management provides the following functionality:

- Show Registered Scale Aliases
- Create Scale
- Update Scale
- Delete Scale

The different functions are described in the following sections.

Show Registered Scale Aliases

To see all registered scales aliases, perform the following steps:

- Click the **Administration/Scales** menu (Figure 25)

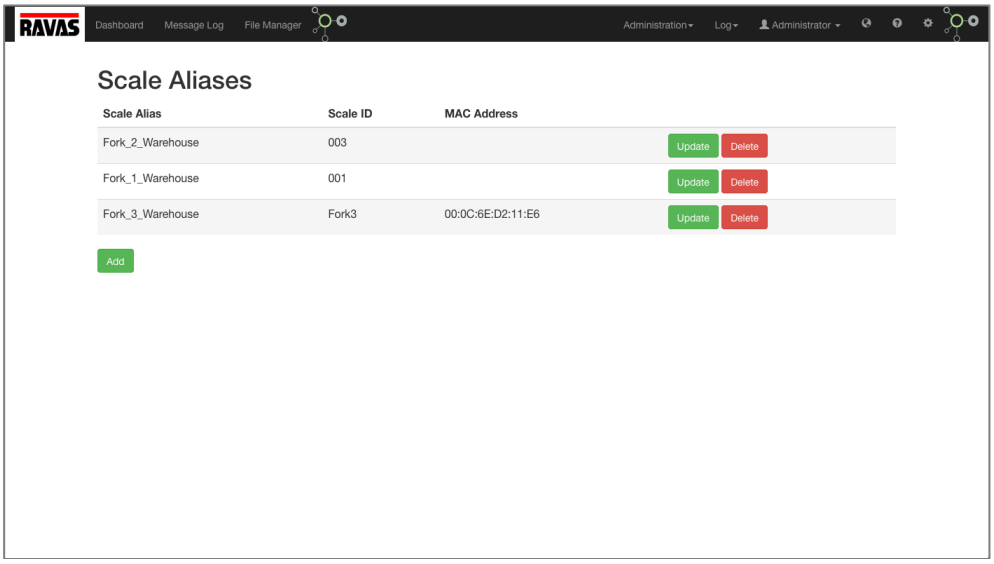

Figure 25 Overview Registered Scale Aliases

Create Scale

The regular way to register a new scale is to perform the following steps:

- Click the **Administration/Scales** menu (Figure 25)
- Click ADD, see Figure 26

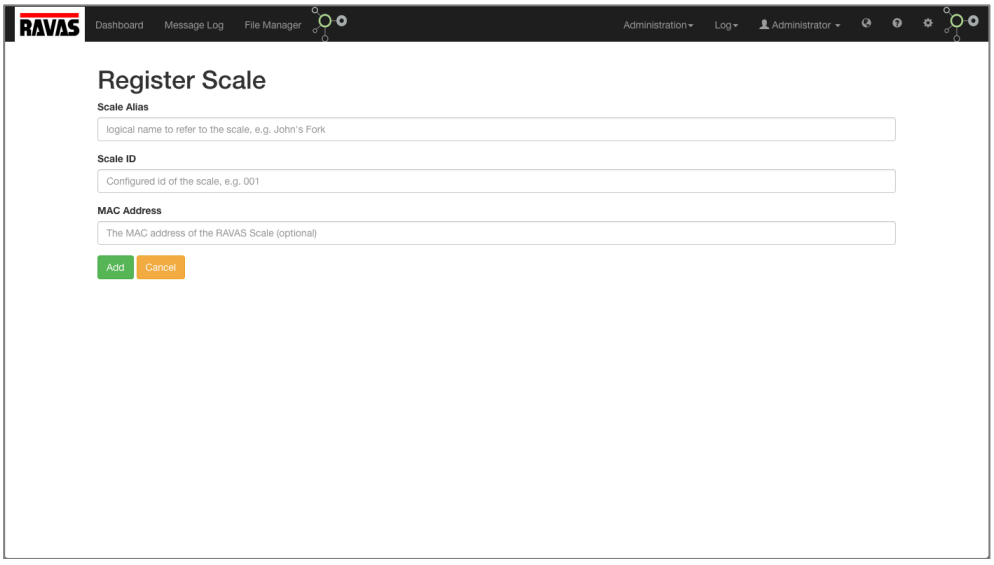

Figure 26 Register Scale

- Enter the following necessary data:

- **Scale ID**, the scales id is configured at the RAVAS Scale and is sent with every message from the RAVAS Scale to the RDC, see *General Overview RAVAS Data Collector*
- **Scale Alias**, any logical name that refers to the RAVAS Scale.
- **MAC Address**, the hardware-id of the RAVAS Scale. This field is optional and is only required when using the RAVAS App to deliver the weight data records.

- Click ADD.

Alternate Creation of a Scale

Another way to create a scale is through the Message Log, see *Message Log*. If a message is received from a RAVAS Scale which is not yet configured. The message log would show that message in the way as shown in Figure 27.

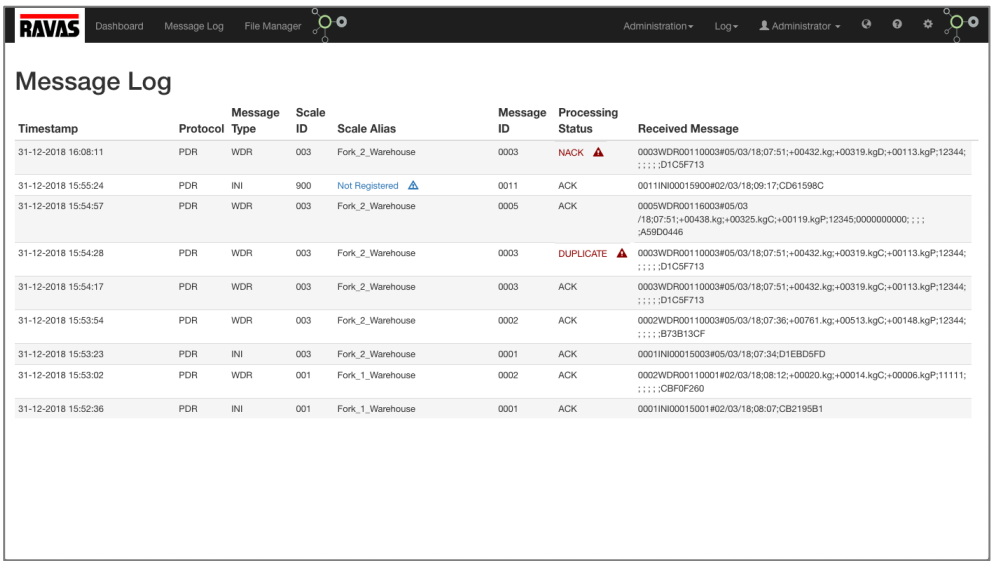

Figure 27 Receipt of message for unregistered scale

In the **Scale Alias** column the value *Not Registered* is shown. This is a hyperlink that will bring you directly to the create scale alias page as described before but with the **Scale ID** field prefilled with the **Scale ID** of the RAVAS Scale that has send the message, see Figure 28

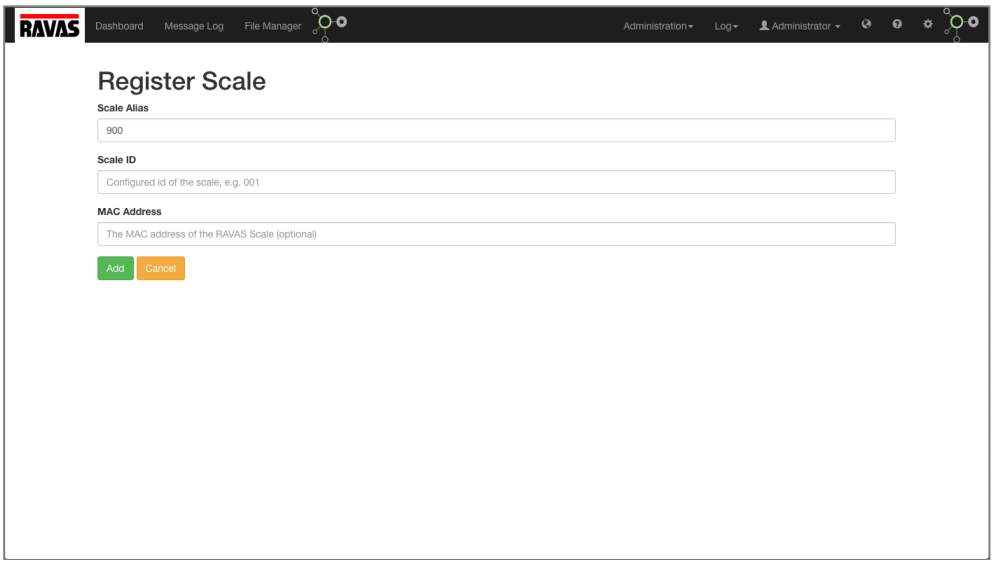

Figure 28 Register scale

Update Scale

To update a scale, perform the following steps:

- Click the **Administration/Scales** menu (Figure 25)
- Click UPDATE for the scale that needs to be updated, see Figure 26

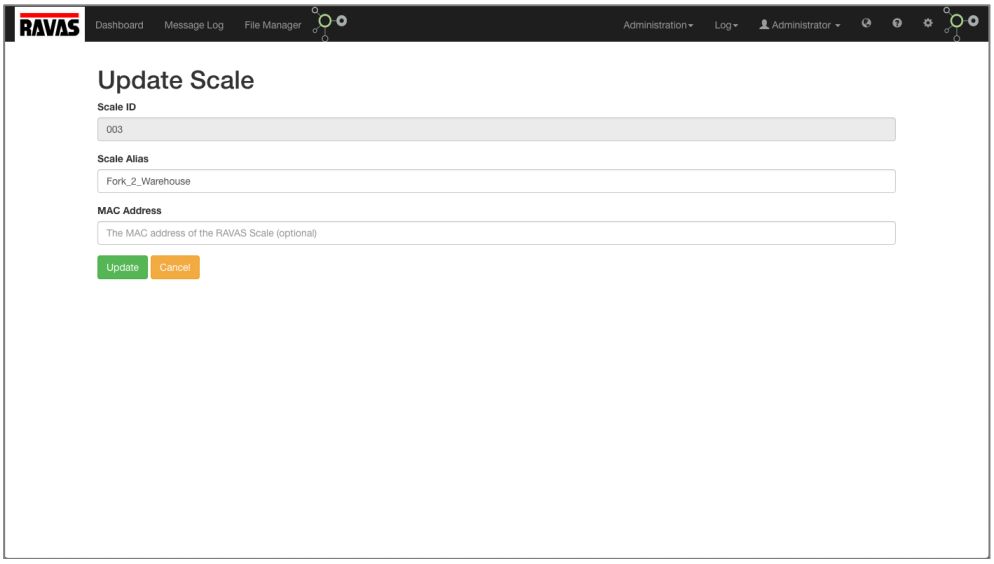

Figure 29 Update Scale

- Update the following data:
  - **Scale Alias**, any logical name that refers to the RAVAS Scale.
  - **MAC Address**, the hardware-id of the RAVAS Scale. This field is optional and is only required when using the RAVAS App to deliver the weight data records.
- Click UPDATE.

Delete Scale

To delete a scale, perform the following steps:

- Click the **Administration/Scales** menu (Figure 25)
- Click DELETE for the scale you would like to delete, see Figure 30

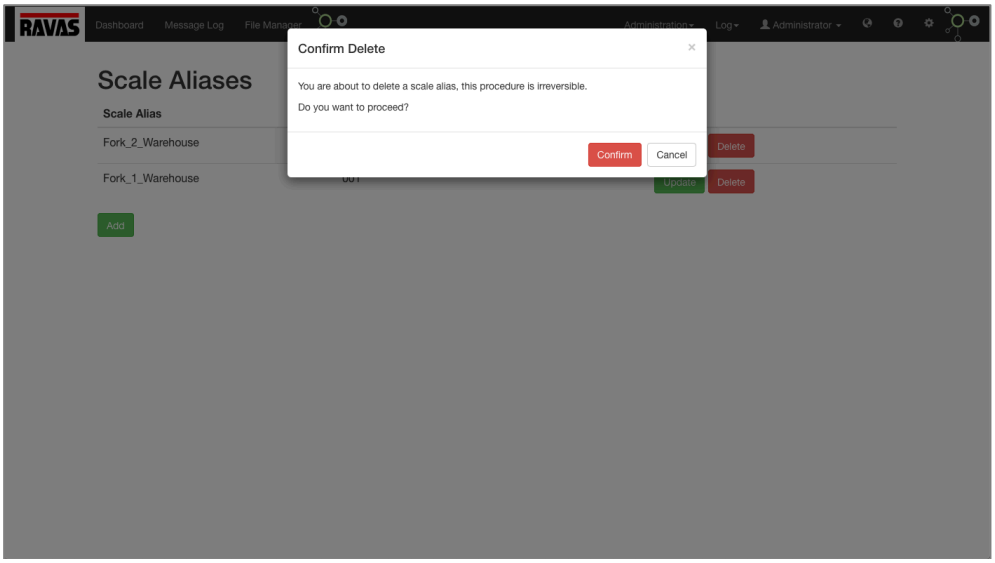

Figure 30 Delete Scale

- Click CONFIRM if you want to proceed with the delete, see Figure 30 or click CANCEL to return to the overview (Figure 25)

Ports Management

Ports Management enables the registration of RDC Ports and the configuration of the primary port.

An RDC port is required to receive messages from a RAVAS Scale. At least one RDC port is required to receive WDR messages and write them to a CSV File.

Through an RDC port you can define that each RAVAS Scale should have its own CSV file for the WDR messages it will send to that port or you can define that the WDR messages of all RAVAS Scales should be written to the same CSV-file.

> ***NOTE:*** *In the case that you would like to have multiple CSV files, where (at least) one CSV file will contain the merged WDR messages of multiple RAVAS Scales and (at least) one CSV File will contain either the merged WDR messages of other RAVAS Scales or the WDR Messages of an individual RAVAS Scale.*
>
> *For example, in the setup of the environment, as described in* General Overview RAVAS Data Collector *five RAVAS Scales are used. The WDR messages of two RAVAS Scales need to be written to one CSV file and the other three to their own individual CSV file. The solution here, is to create two RDC Ports. One Port configured to merge the WDR messages to one file and the other configured NOT to merge. Configure the RAVAS Scales with the correct port number.*

Each day the RDC will created a new CSV file having the current date included in the filename, see *File Manager*.

The primary port is the port being used to access the RDC web application to configure and monitor the RDC software.

Ports Management provides the following functionality:

- Show Configured Ports
- Enable/Disable Port
- Create Port
- Update Port
- Delete Port

The different functions are described in the following sections.

Show Configured Ports

To see all registered ports, perform the following steps:

- Click the **Administration/Ports** menu (Figure 31)

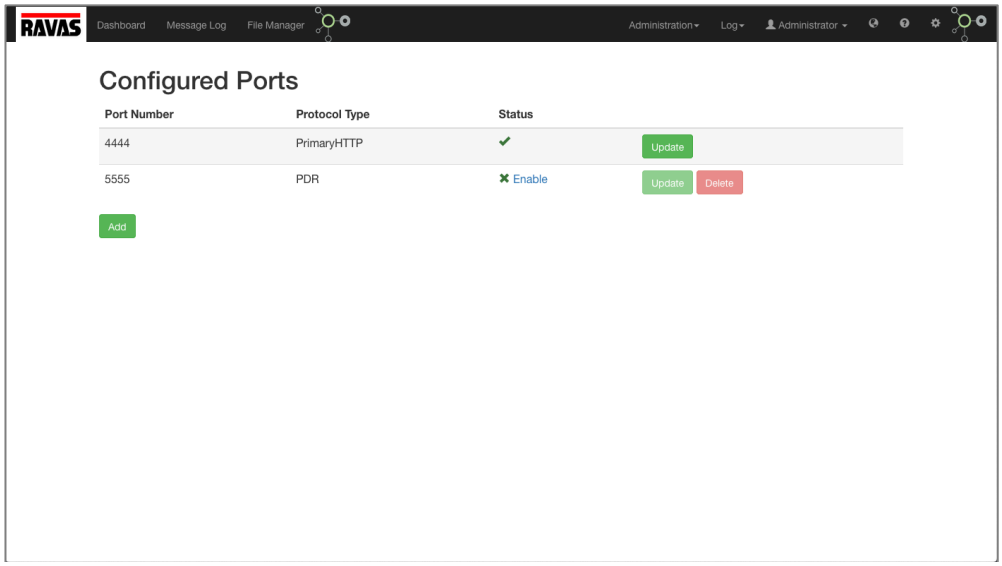

Figure 31 Ports Management Overview

Enable/Disable Port

To prevent that messages are delivered from a RAVAS Scale to the RAVAS Data Collector ports can be disabled.

Perform the following steps to enable/disable a port:

- Click the **Administration/Ports** menu (Figure 31)
- Depending on the status of the port, click DISABLE or ENABLE in the **Status** column.

Add Port

To add a port, perform the following steps:

- Click the **Administration/Ports** menu (Figure 31)
- Click ADD, see Figure 32

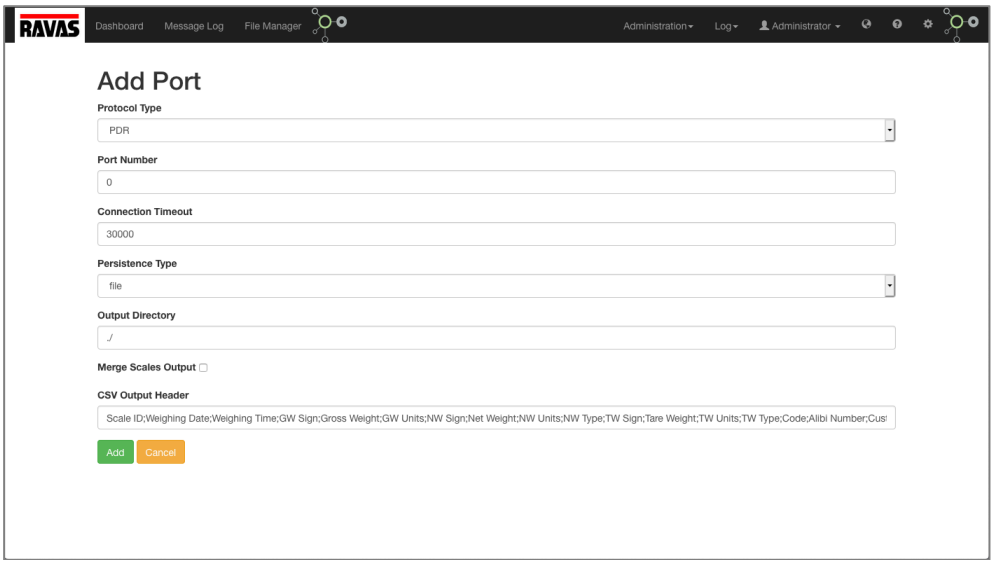

Figure 32 Add Port

- Enter the following necessary data:
  - **Protocol Type**, select PDR from the drop-down list. PDR is the Push Data Record protocol of the RDC, see *General Overview RAVAS Data Collector*
  - **Port Number**, the RDC will listen on this port for incoming PDR messages.

> ***IMPORTANT:*** *if a new port is created, then do verify if the firewall allows communication through this port.*

  - **Connection Timeout**, the time in milliseconds that the RDC will wait for incoming data before it closes the connection. In the case that a connection may never timeout then specify *0* milliseconds
  - **Persistence Type**, indicates where the RDC will write the WDR messages of the PDR protocol to. Currently only the *file* type is supported.
  - **Output Directory**, the directory where the CSV files are being persisted. This value can be relative to where the RDC is installed, e.g. ./output, or it can be absolute, e.g. *C:\RDC-CSV*
  - **Merge Scales Output**, if this checkbox is checked then the WDR messages of all RAVAS Scales will be written to the same CSV file. If you leave this unchecked, then there will be a CSV file created for each individual RAVAS Scale.

- **CSV Output Header**, here you can adjust the column heading of the CSV file.

> ***IMPORTANT:*** *changing the order of the labels does NOT change the order in which the data is written to the CSV file. The order is not configurable.*

- Click ADD

If the port needs to be enabled, then see *Enable/Disable Port*

Update Port

Update PrimaryHTTP Port

The PrimaryHTTP port is the port that is used to access the web application of the RDC software for configuring and monitoring the RAVAS Data Collector.

This port is also used by the RAVAS App to deliver weight data records from the App to the RDC server.

The PrimaryHTTP port cannot be deleted. The port number can be changed but requires a restart of the RDC, see *Restart/Stop Server*

To update the PrimaryHTTP port, perform the following steps:

- Click the **Administration/Ports** menu (Figure 31)
- Click UPDATE for the, see Figure 34

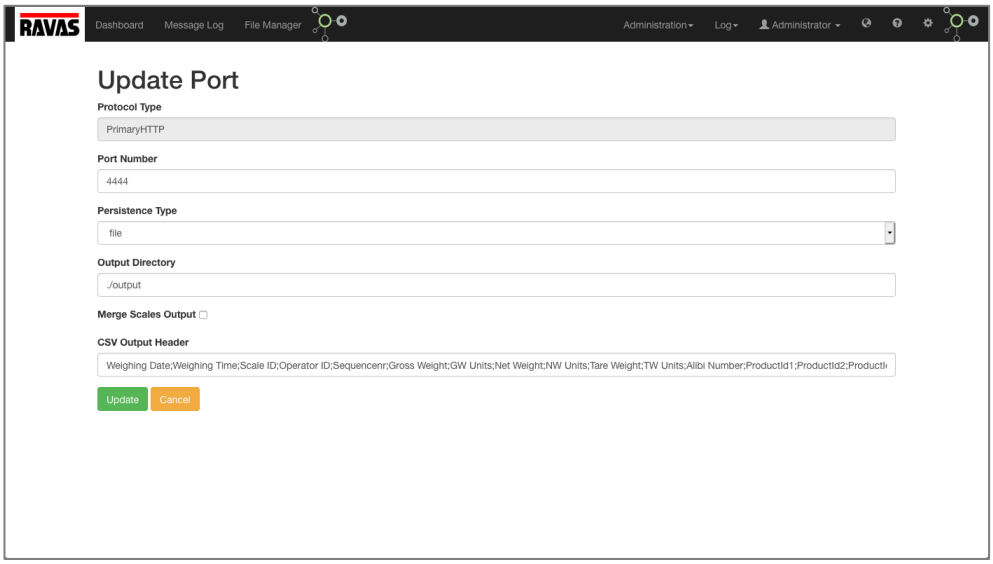

Figure 33 Update PrimaryHTTP port

- Update the required parameters:
  - **Port Number**, the port used to access the RDC web application and to deliver weight data records from the RAVAS App.

IMPORTANT: *if the PrimaryHTTP port is changed, then do verify if the firewall allows communication through this port.*

IMPORTANT: *Changing the PrimaryHTTP port requires a restart of the server to effectuate the change.*

- **Persistence Type**, indicates where the RDC will write the WDR messages of the PDR protocol to. Currently only the *file* type is supported.
- **Output Directory**, the directory where the CSV files are being persisted. This value can be relative to where the RDC is installed, e.g. ./output, or it can be absolute, e.g. *C:\RDC-CSV*
- **Merge Scales Output**, if this checkbox is checked then the weight data arecords from the RAVAS App will be written to the same CSV file. If you leave this unchecked, then there will be a CSV file created for each individual RAVAS Scale.
- **CSV Output Header**, here you can adjust the column heading of the CSV file.

IMPORTANT: *changing the order of the labels does NOT change the order in which the data is written to the CSV file. The order is not configurable.*

Update RDC Port

To update a port, perform the following steps:

- Click the **Administration/Ports** menu (Figure 31)
- If the port that needs to be updated is enabled, **Status** is ✓*Disable*, then first click DISABLE.
- Click UPDATE for the port that needs to updated, see Figure 34

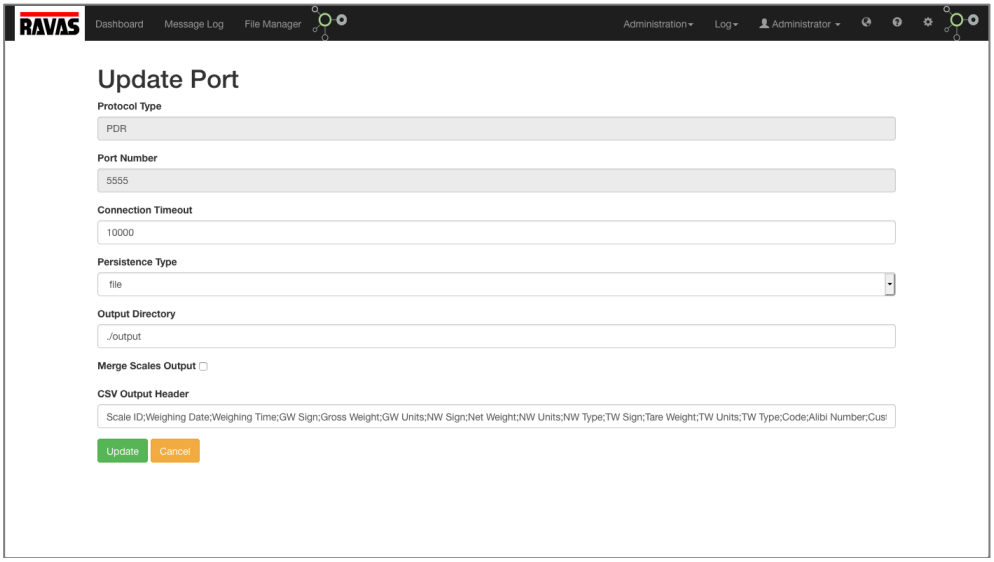

Figure 34 Update Port

- Update the required parameters:

- **Connection Timeout**, the time in milliseconds that the RDC will wait for incoming data before it closes the connection. In the case that a connection may never timeout then specify *0* milliseconds
- **Persistence Type**, indicates where the RDC will write the WDR messages of the PDR protocol to. Currently only the *file* type is supported.
- **Output Directory**, the directory where the CSV files are being persisted. This value can be relative to where the RDC is installed, e.g. ./output, or it can be absolute, e.g. *C:\RDC-CSV*
- **Merge Scales Output**, if this checkbox is checked then the WDR messages of all RAVAS Scales will be written to the same CSV file. If you leave this unchecked, then there will be a CSV file created for each individual RAVAS Scale.
- **CSV Output Header**, here you can adjust the column heading of the CSV file.

> ***IMPORTANT:*** *changing the order of the labels does NOT change the order in which the data is written to the CSV file. The order is not configurable.*

Delete Port

To delete a port, perform the following steps:

- Click the **Administration/Ports** menu (Figure 31)
- If the port that needs to be deleted is enabled, **Status** is ✓*Disable*, then first click DISABLE.
- Click DELETE for the port that needs to deleted, see Figure 35

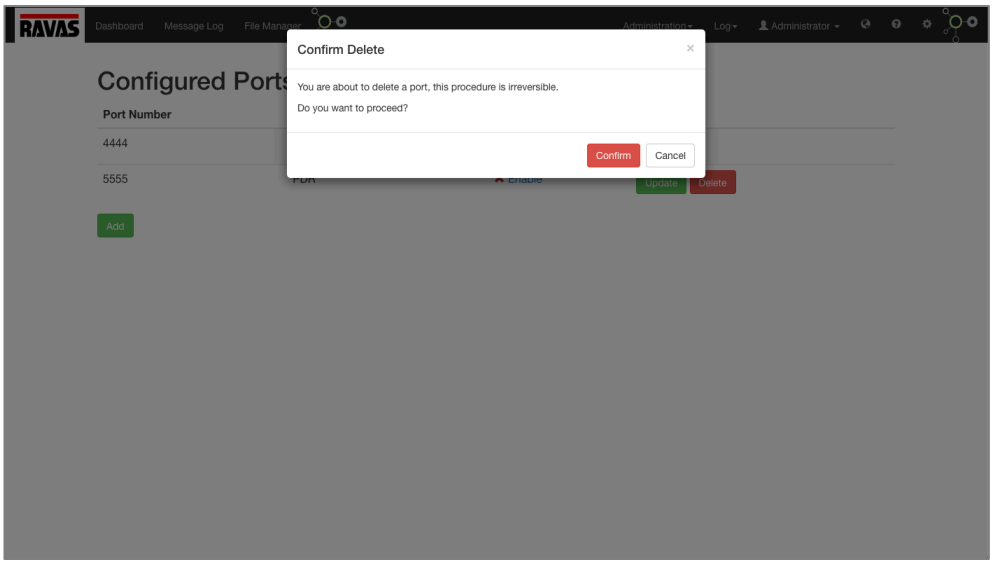

Figure 35 Delete Port

- Click CONFIRM if you want to proceed with the delete, see Figure 35 or click CANCEL to return to the overview (Figure 31)

Server Parameters

Some of the behaviour of the RSS/RDC server can be controlled through parameters which are defined in the file ./config/rss.properties. The parameter values can be changed through the RDC Console **Administration/Parameters** (Figure 36).

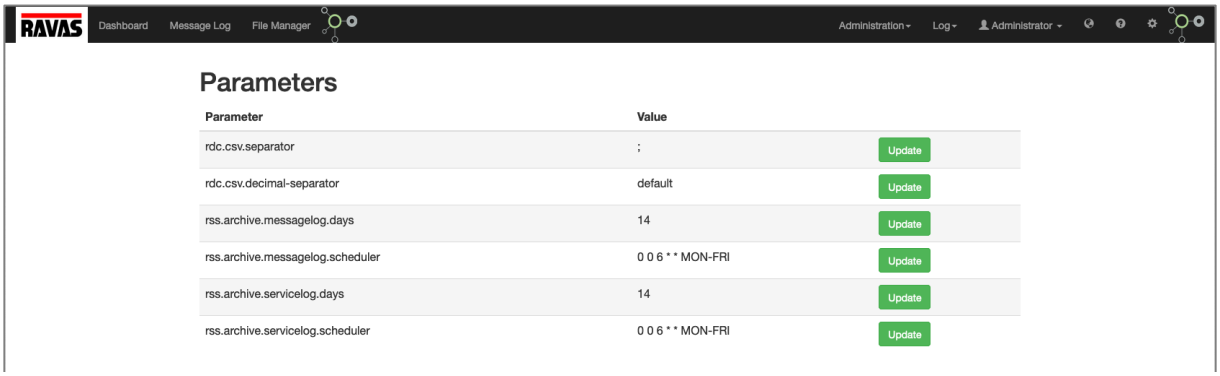

Figure 36 RSS Parameters

rdc.csv.separator

The parameter **rdc.csv.separator** defines the CSV field delimiter that the RSS uses when formatting a weighing record to write to a CSV-file when running in the RAVAS Data Collector (RDC).

rdc.csv.decimal-separator

The parameter **rdc.csv.decimal-separator** defines how the decimal-separator is determined for the decimal values in the CSV file. By default the RDC uses the computers parameters for the user-settings(Locale) like language and region to determine the decimal-separator. The default value of this parameter is: *default*. If the computers Locale is not resulting in the expected character this character can be overruled by specifying the required character like *,* or *.*, instead of the *default* value.

rss.archive.messagelog.days

The parameter **rss.archive.messagelog.days** specifies after how many days a message log record after creation is archived. The service for archiving is scheduled automatically using the schedule as defined by parameter *rss.archive.messagelog.scheduler*.

rss.archive.messagelog.scheduler

The parameter **rss.archive.messagelog.scheduler** specifies a *cron* configuration for the message log archive job. Cron is a time-based job scheduler software utility. The default **cron** configuration for the message log archive job is *0 0 6 * * MON-FRI* which means that every Monday till Friday the job will run at 6:00 AM and zero seconds.

rss.archive.servicelog.days

The parameter **rss.archive.servicelog.days** specifies after how many days a service log record after creation is archived. The service for archiving is scheduled automatically using the schedule as defined by parameter *rss.archive.servicelog.scheduler*.

rss.archive.servicelog.scheduler

The parameter **rss.archive.servicelog.scheduler** specifies a *cron* configuration for the service log archive job. Cron is a time-based job scheduler software utility. The default **cron** configuration for the service log archive job is *0 0 6 * * MON-FRI* which means that every Monday till Friday the job will run at 6:00 AM and zero seconds.

Clean-up Message Log

The Message Log will grow when the RDC is accepting messages from RAVAS Scales. This will consume disk space and may result in consuming all available disk space if the message log is not cleaned up.

To prevent this the RAVAS Scale server automatically executes a message log archive job according to the schedule specified by the parameter *rss.archive.messagelog.scheduler*.

The clean-up can also be executed manually to free up allocated diskspace.

To clean-up the message log manually, perform the following steps:

- Click the **Administration/Message Log** menu (Figure 37)

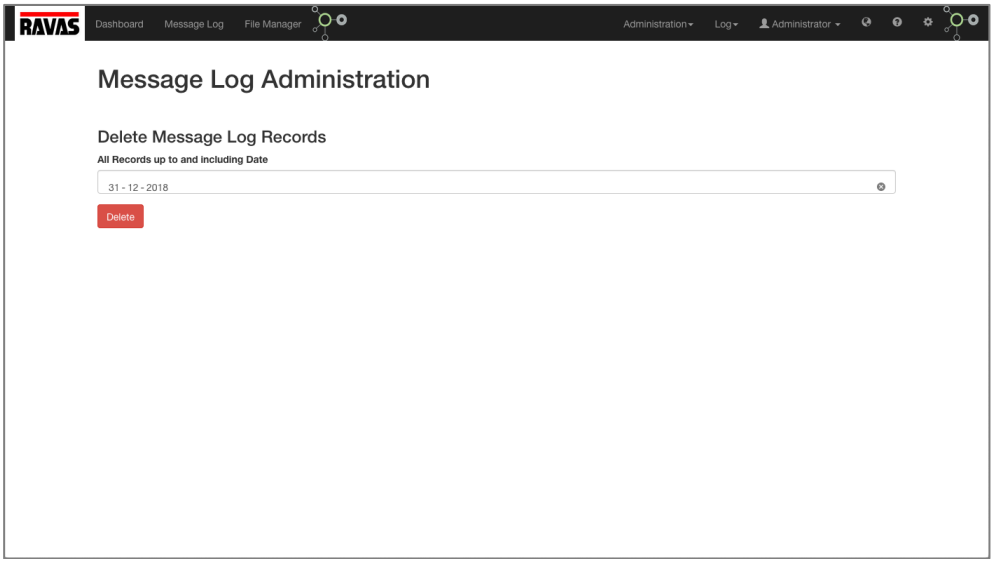

Figure 37 Message Log Administration

- Specify the **All Records From Date** and use the format *dd-mm-yyyy* or use the date picker, see Figure 38.

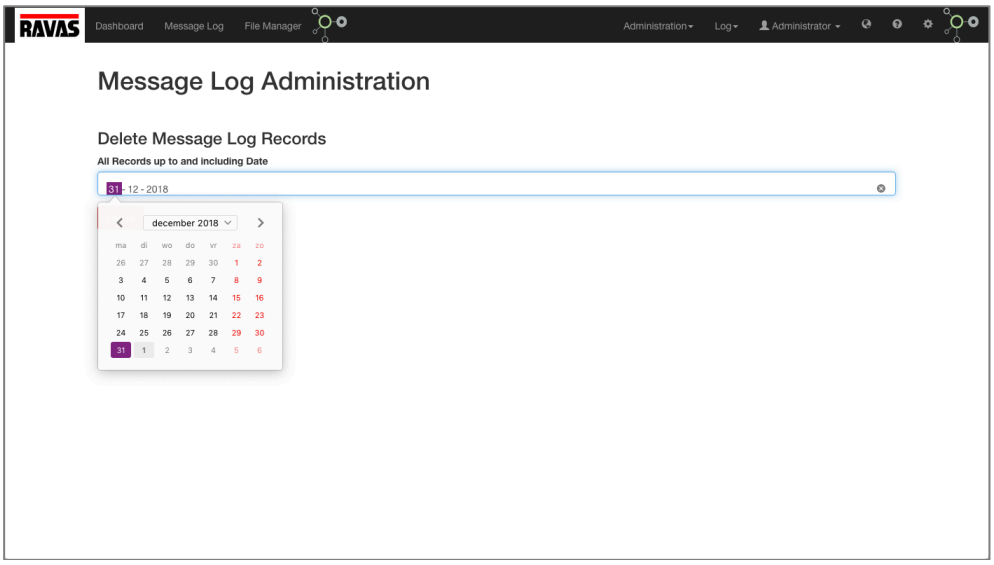

Figure 38 Clean-up Message Log - Specify date

- Click DELETE and all records older than or equal to the specified date are being deleted from the Message Log. Undoing this operation is not possible.

Consult Logs

The RDC Console has two logs for the Administrator, namely the server and the service log. Both logs can be consulted for problem solving. In a normal operation mode there is no need to consult these logs.

Consult Server Log

The server log contains all RDC system messages, both information and errors. If the RAVAS Data Collector is not behaving in the expected way, then consult the Server Log to see if there is any error or other information that may help you in solving the issue.

To consult the server log, perform the following steps:

- Click the **Log/Server Log** menu (Figure 39)
- Click the pagination buttons to scroll through the server log (they appear when there is more than one page to show).

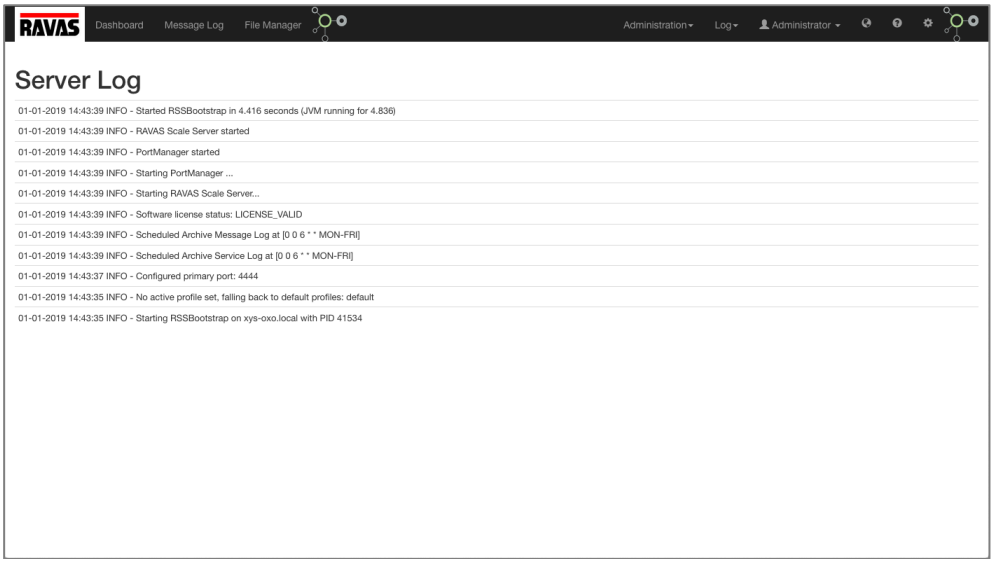

Figure 39 Server Log

The server log resides in the *logs* folder in the folder where the RDC is installed (default: *C:\Program Files (x86)\RAVAS Europe BV\Ravas Scale Server*).

Each day a new server log file is created. The log files are kept for five days, then will be discarded.

Consult Service Log

The service log contains the service execution status of the services being executed by the RAVAS Scale Server in either RDC or RIS mode.

To consult the service log, perform the following steps:

- Click the **Log/Service Log** menu (Figure 40)
- Click the pagination buttons to scroll through the service log (they appear when there is more than one page to show).

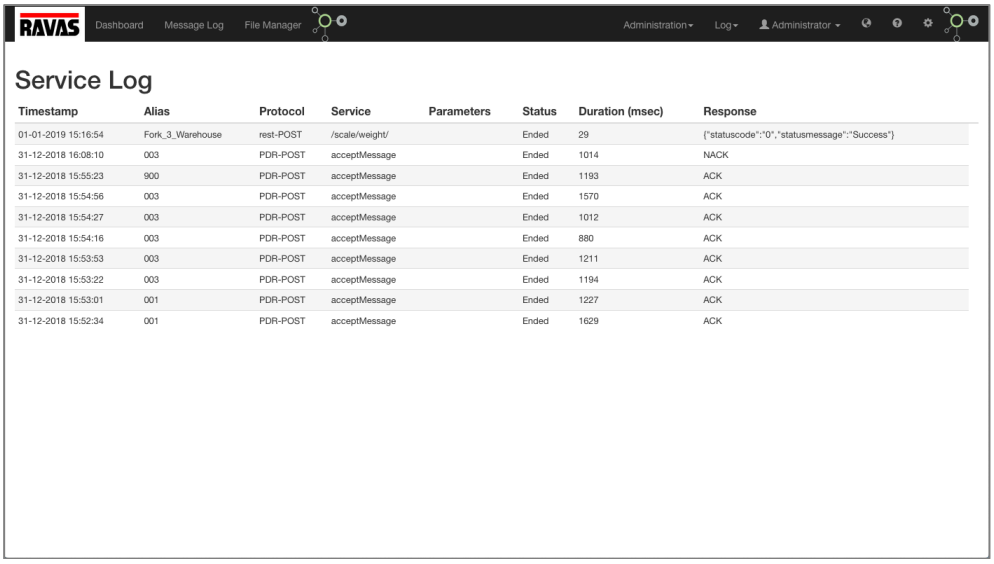

Figure 40 Service Log

The Service Log resides in the database and grows when the RDC is accepting messages from RAVAS Scales.

The RAVAS Scale server automatically executes a service log archive job according to the schedule specified by the parameter *rss.archive.servicelog.scheduler*.

Change Logging Level Server Log

The amount of information logged in the server log is depending on the configured logging level of the RDC. The default configuration of the logging level for the RDC is suitable for regular use of the RDC.

In the case of problems regarding the operation of the RDC, the logging level can be adjusted to produce more detailed logging information. The following logging levels are supported:

- ERROR, only log errors that occur
- WARN, log warnings and error messages
- INFO, log informational, warning and error messages
- DEBUG, log more detailed, informational, warning and error messages
- TRACE, log all messages that the RDC can write to the log.

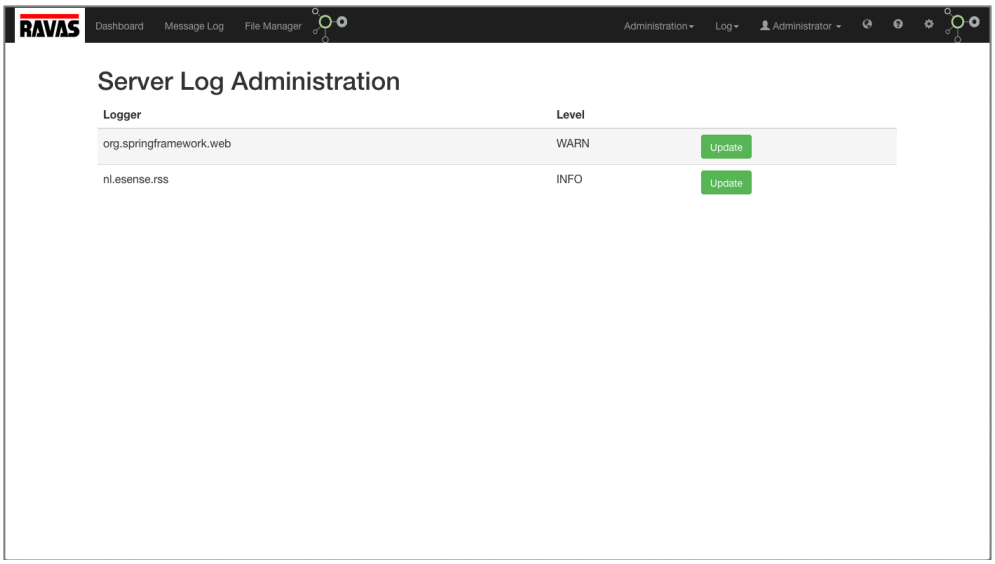

Figure 41 Server Log Logging Level

To clean-up the logging level of the RDC perform the following steps:

- Click the **Administration/Server Log** menu (Figure 41)
- Click the UPDATE button of the **Logger** who's logging level must be adapted.

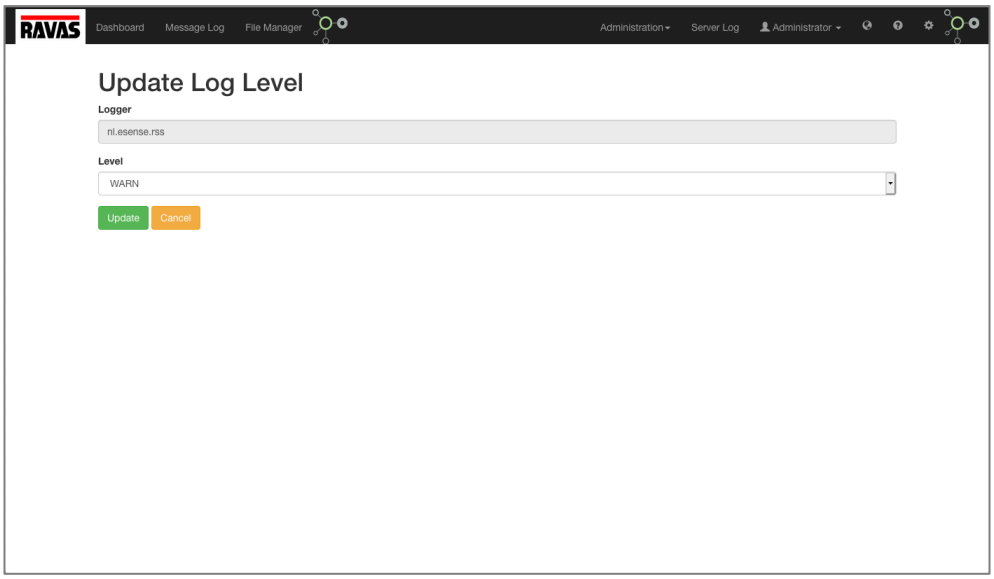

Figure 42 Update Log Level

- Change the logging **Level**.
- Click UPDATE to confirm the change or CANCEL to return without changing the logging level.

Restart/Stop Server

As an Administrator you can restart or stop the RAVAS Data Collector from the RDC Console.

A restart is typically done after a configuration change of for example the primary port of the RDC Server or after the activation of a new license key.

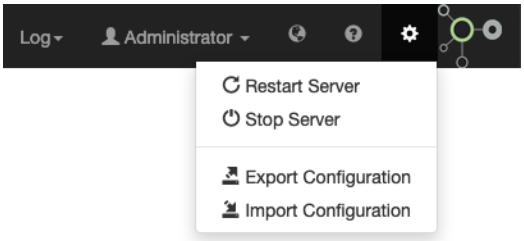

Figure 43 Restart/Stop RDC Server

Before the server is stopped or restarted a confirmation of the requested operation is asked, see Figure 44.

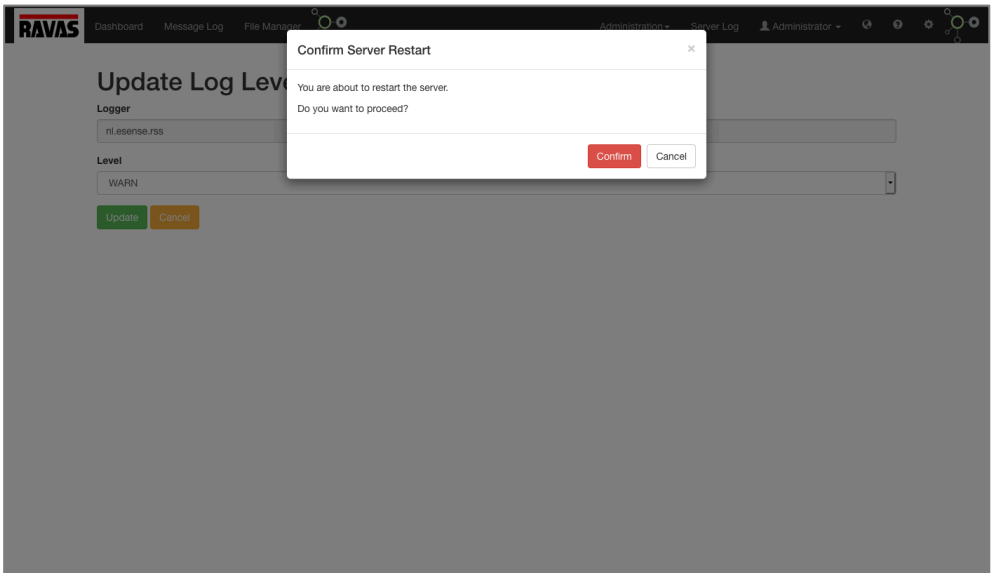

Figure 44 Confirm restart/stop server operation

Export/Import Server Configuration

As an Administrator you can export the following configuration items of the server to a text file:

- Defined Users
- License Information
- Scales
- Parameters
- Ports

The export results in the creation of a file that is written to the *export* folder in the directory where the RDC is installed (default: *C:\Program Files (x86)\RAVAS Europe BV\Ravas Scale Server*).

Creating a configuration export file is useful when you need to install an upgrade of the server and you do not want to reconfigure the RDC or you simply want to create a backup of the configuration in the case that the configuration needs to be reset.

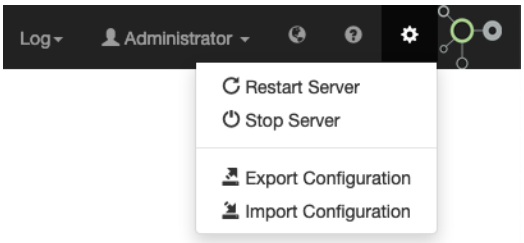

Figure 45 Export/Import Server Configuration

Before the server configuration is exported or imported a confirmation of the requested operation is asked, see Figure 44.

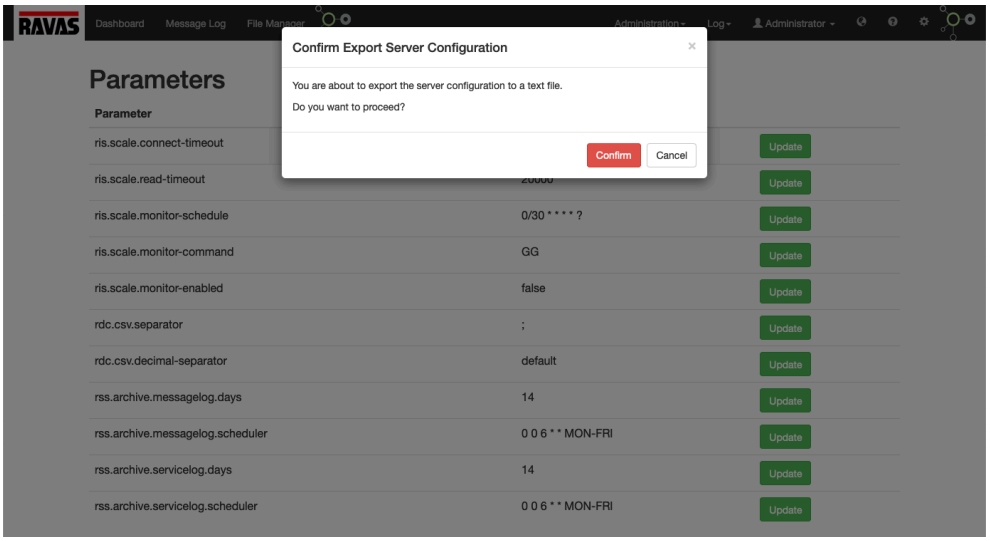

Figure 46 Confirm export/import server configuration