

1 Purpose

This document describes the differences between the new software version **tiamo 2.2** and its predecessor **tiamo 2.1**.

2 New features

New instruments

- 859 Titrotherm



Note

When installing tiamo 2.2 an eventually existing USB driver for the 859 Titrotherm from the Multitrator software will be deleted and replaced by the tiamo driver. Therefore it cannot be titrated with the Multitrator software on this system anymore.

New commands

- **TET**: Command for thermometric titration with the 859 Titrotherm.
- **RLS DEV**: Release device for parallel working on another workplace.
- **RLS DOS**: Release dosing device for parallel working on another workplace.

News in the program part Workplace

- Sample data: By typing in the first characters to the field **Method** the selection of the method is continuously restricted and allows fast selecting of the method required.
- Statistical results are being additionally regressed against the **Sample size**. This results in the new variables **.SLO**, **.ITC**, **.COR**. This can be used e.g. for validation purposes, for titer and blank value determinations (thermal titration).

News in the program part Method

- In the formula editor the **sample data variables of the next sample line** are available.

News in the program part Configuration

- Besides client-specific common variables, there are also global variables available which are saved over all clients and can be used in formulas under the designation '**GV.Name**'.
- New sensor type: **Thermoprobe** for Titrotherm.

3 Improvements

Program part Workplace

- With single determinations in which the option **Autorepeat determination** is set, the field **Autostart** is displayed for the determination parameters in which the number of determination starts already carried-out is shown.
- The request windows for the commands **WAIT** and **REQUEST** are now automatically resized if the text content needs more space.

Program part Database

- The dialog window **Open database** opens immediately and shows all databases. Additional information (database size, etc.) is displayed one after the other. The access rights are then checked when opening the databases.
- The databases are opened even faster if they are sorted by the **Determination start**.
- In the menu **File** the last five databases opened on this client are listed.
- Reading-in barcodes has been improved.
- tiAMO repairs databases automatically.
- Fixed values are being displayed inactive in the Recalculating.
- The sequence of the results in the statistics dialog corresponds to the definition in the **CALC** command (this concerns the results view in the determination database, views in the Recalculating, report result list, report statistics short, report statistics overview).

Program part Method

- Command **REPORT**: The path for PDF and E-mail address can be transferred as variables.
- Command **WAIT**: The E-mail address can be transferred as a variable.
- Command **CALC**: The E-mail address can be transferred as a variable.

Program part Configuration

- Global variables, text templates and sample assignment tables can be exported and imported.
- When changing the titer, the values **Date titer det.**, **Titration method**, **User** are additionally saved in the Audit Trail.

Program part Manual Control

- If all stirrers are selected, no **Stirring time** for continuous operation can be entered.

4 Fixed bugs and problems

General

- When tiamo is closed before the login dialog appears, then an exception may occur.
- If having canceled after the entry of the licence update (tiamo 1.x to tiamo 2.x) and tiamo is normally started afterwards, an error message occurs.

Program part Workplace

- Fast reading-in of barcodes can lead to the fact, that no more barcodes can be read-in.
- If a titration command is started via a **SEND** command in status **Cond not ok**, then no entry appears in the message list.

Program part Database

- The data of a conductivity determination is not displayed with the menu item **Determinations ► Show calibration curve...**
- The blank value with a concentration calibration is not being recalculated in the Recalculating.
- Indexed method variables get lost during the Recalculating.
- With fixed reports, in the selection list, the report **Used titrants/solutions** is missing.
- The run test returns an exception when a **WEIGH** command is present in the method.

Program part Method

- **DOS:** For Titrinos, the stirrer mistakenly occurs on the tab **General/Hardware**.
- In the method parameters report the field **Tolerance** is missing for **CAL Spec**.

Program part Configuration

- When newly adding a Titrando, the firmware version is not being checked.
- The PREP warning does not appear for the 700 Dosino and 685 Dosimat.
- If a rack has the same name as a rack template in the directory **.../tiamo/res/rackdata**, an exception may occur.

5 Compliance

The current software version does not contain any modifications regarding 21 CFR Part 11 and GAMP .

Herisau, 1 February 2010

A handwritten signature in black ink, appearing to read 'D. Strohm', with a stylized, cursive script.

D. Strohm

Vice President, Head of R&D