Metrohm

MagIC Net 3.2

Release Notes

1 Purpose

This document describes the differences between the new software version **MagIC Net 3.2** and its predecessor **MagIC Net 3.1**.

2 New features

New instruments

- **Eco IC**
  Intelligent ion chromatograph with conductivity detector and chemical suppression.
- **LPG**
  New instrument component for Combustion Module.

New columns

- For anion analysis:
    - Metrosep A Supp 4 - 250/2.0
    - Metrosep A Supp 5 - 150/2.0
    - Metrosep A Supp 5 - 250/2.0
    - Metrosep A Supp 7 - 150/2.0
    - Metrosep A Supp 7 - 250/2.0
    - Metrosep A Supp 17 - 100/4.0
    - Metrosep A Supp 17 - 150/4.0
    - Metrosep A Supp 17 - 250/4.0
- For cation analysis:
    - Metrosep C 6 - 100/2.0
    - Metrosep C 6 - 150/2.0
    - Metrosep C 6 - 250/2.0
    - Metrosep C Supp 1 - 100/4.0
    - Metrosep C Supp 1 - 150/4.0
    - Metrosep C Supp 1 - 250/4.0
- For carbohydrate analysis:
    - Metrosep Carb 2 - 100/2.0
    - Metrosep Carb 2 - 150/2.0
    - Metrosep Carb 2 - 250/2.0

General

- In the calibration curve view, the concentration of the standard solution, which is calculated with the calibration curve, and the percentual deviation of this calculated concentration from the nominal concentration are displayed.
- Next to English and German, Simplified Chinese and Traditional Chinese are now also installed by default.

Workplace program part

- A boat sensor can now be used with the Combustion Module which checks if a boat was correctly removed after the combustion. If no boat is detected by the boat sensor, then all instruments are stopped.

Method program part

- For the **Combust** command in the time program of the Auto Boat Driver, you can select if the combustion is carried out using a flame sensor or a feed that can be programmed manually.
- A start delay can now be activated in the start parameters for the amperometric detector. If the **Start delay** check box is activated, the amperometric cell is switched on only after the defined waiting time has expired.
- You can look for a command number and open that command with the new **Go to…** menu item in the main programs and subprograms of the time program.
- For calibration curves, the percentual standard error of the calibration function is now available as the new **CALRSE** variable (%RSE, according to 40 CFR Part 136.6 - Method modifications and analytical requirements, July 2015).
- Calibration points can be exported and imported in the calibration curve view.

- New method templates for anion analysis:
  - **Metrosep A Supp 4 - 250/2.0**
    7 anions (fluoride, chloride, nitrite, bromide, nitrate, phosphate, sulfate)
  - **Metrosep A Supp 5 - 150/2.0**
    7 anions (fluoride, chloride, nitrite, bromide, nitrate, phosphate, sulfate)
  - **Metrosep A Supp 5 - 250/2.0**
    7 anions (fluoride, chloride, nitrite, bromide, nitrate, phosphate, sulfate)
  - **Metrosep A Supp 7 - 150/2.0**
    7 anions (fluoride, chloride, nitrite, bromide, nitrate, phosphate, sulfate)
  - **Metrosep A Supp 7 - 250/2.0**
    11 anions (fluoride, chlorite, bromate, chloride, nitrite, bromide, chlorate, dichloroacetate, nitrate, phosphate, sulfate)
  - **Metrosep A Supp 17 - 100/4.0**
    7 anions (fluoride, chloride, nitrite, bromide, nitrate, sulfate, phosphate)
  - **Metrosep A Supp 17 - 150/4.0**
    7 anions (fluoride, chloride, nitrite, bromide, nitrate, sulfate, phosphate)
  - **Metrosep A Supp 17 - 250/4.0**
    7 anions (fluoride, chloride, nitrite, bromide, nitrate, sulfate, phosphate)
- New method templates for cation analysis:
  - **Metrosep C 6 - 100/2.0**
    6 cations (lithium, sodium, ammonium, potassium, magnesium, calcium)
  - **Metrosep C 6 - 150/2.0**
    6 cations (lithium, sodium, ammonium, potassium, magnesium, calcium)
  - **Metrosep C 6 - 250/2.0**
    6 cations (lithium, sodium, ammonium, potassium, magnesium, calcium)
  - **Metrosep C Supp 1 - 100/4.0**
    5 cations (lithium, sodium, potassium, magnesium, calcium)
  - **Metrosep C Supp 1 - 150/4.0**
    6 cations (lithium, sodium, ammonium, potassium, magnesium, calcium)
  - **Metrosep C Supp 1 - 250/4.0**
    6 cations (lithium, sodium, ammonium, potassium, magnesium, calcium)

- New method templates for carbohydrate analysis:
  - **Metrosep Carb 2 - 100/2.0**
    5 carbohydrates (inositol, arabitol, glucose, fructose, sucrose)
  - **Metrosep Carb 2 - 150/2.0**
    8 carbohydrates (inositol, arabitol, sorbitol, glucose, xylose, fructose, lactose, sucrose)
  - **Metrosep Carb 2 - 250/2.0**
    8 carbohydrates (inositol, arabitol, sorbitol, glucose, xylose, fructose, lactose, sucrose)

Configuration program part

- In the program management, access permission can now be defined to edit time programs.
- The **MSM-HC C** rotor (article number 6.2842.200) can be added into the rotor table.
- The volume of the sample loop is displayed for the **LPG/GSS** and **LPG** instrument components in the properties of the Combustion Module.

New instrument firmware

Firmware version	Instruments	Comment
58500112	Eco IC	
T0916091514	Combustion Module	After the firmware update, a software update to MagIC Net 3.2 is also required.
		MagIC Net 3.2 works only with the T0916091514 oven firmware version.
		At the same time, the ABD firmware must also be updated to the latest version for the cooling of the Auto Boat Driver not to start when the instrument is switched on but only when **[Start HW]** is started.
		The firmware update for oven and Auto Boat Driver must be carried out by a Metrohm service engineer.

3 Improvements

General

- MagIC Net 3.2 runs in JRE 8 runtime environment with current time zone settings.
- MagIC Net 3.2 runs on Windows 8.1 operating system and Windows Server 2012 R2.
- MagIC Net 3.2 runs on Windows 10 operating system.

Workplace program part

- A message appears in the Watch Window if the number of recorded points of a chromatogram deviates significantly from the number of expected points.

- The cooling of the Auto Boat Driver for the Combustion Module starts only after equilibration with **[Start HW]**. This improvement requires an update of the Auto Boat Driver firmware to the latest version.

Database program part

- The display for the result definition can be deactivated in the **Results** subwindow.
- It can be defined for calibration curves which columns are to be shown in the calibration data table in the **Curves** subwindow in the determination overview and in the reprocessing window.
- The **area** and **height** can now be displayed as peak labels for chromatograms in the determination overview and in the reprocessing window.

Method program part

- For the start parameters of the **Combustion Oven** instrument, the maximum permitted value for the **Post-combustion time** parameter was raised from **600 s** to **32,400 s**.
- For the **Combustion Oven** instrument, the maximum permitted value for the **Combustion amount** parameter of the **Combust** command was raised from **50 µL** to **250 µL** for LPG and from **20 mL** to **65 mL** for GSS.
- In the **Evaluation - Results** subwindow, you can now copy, cut and paste table lines also for user-defined results and monitoring.
- In the **Dosino gradient** command, the volume which is needed to carry out the command is now displayed in the **Total volume** parameter.
- New method templates were added for the new columns.
- It can be defined for calibration curves which columns are to be shown in the calibration data table in the **Chromatograms** subwindow.
- The **area** and **height** can now be displayed as peak labels for chromatograms in the **Chromatograms** subwindow.

4 Fixed bugs and problems

Workplace program part

- If no method had been started in the **Equilibration** section, the program would crash when starting a sample series. An error message will now be displayed in this case which will notify that a method has to be loaded first in the **Equilibration** section.

Database program part

- If a determination which had been added to a batch was reprocessed, the batch name would not be saved into the determination data. The name of the original batch, with which the determination was run, will now be saved even if the determination is added to another batch retrospectively.
- If a component could not be found when evaluating a chromatogram, the value of 0.0 was entered misleadingly for the height and area which lead to wrong results. The values are now marked as invalid.
- If a database was renamed, the program would crash when reprocessing UV determinations with spectra from that database.

- The calculation of the peak asymmetry lead to different results for the various calculation regulations **EP, latest ed.**, **JP, latest ed.** and **USP** even though the calculation formula are identical.

Configuration program part

- If a new amperometric cell was connected to the amperometric detector, the date of the start-up was not saved onto the chip.
- Bugs that led to a hardware stop were not recorded in the Audit trail.

Manual control program part

- If the robotic arm was moved to an external position and if, subsequently, it was tried to assign this position to a special beaker in the **Tower** tab of the manual control of the instruments **858 Professional Sample Processor**, **919 IC Autosampler plus**, **814 USB Sample Processor** or **815 Robotic USB Sample Processor XL**, a communication error would occur and the sample rack would then be unusable. An external position cannot be assigned to a special beaker anymore.

5 Compliance

The current software version does not contain any modifications that affect conformity of **MagIC Net** regarding 21 CFR Part 11 and GAMP.

Herisau, December 1, 2016

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