

TitrIC 2.0



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TitrIC 2.0

Online Help

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1 Introduction

1.1 Welcome to TitrIC

Introduction



TitrIC 2.0

TitrIC

TitrIC provides fully automatic water analysis. In a single run, all necessary sample preparation steps are carried out and the desired titrimetric and ion chromatographic results are determined.

All ion components are thus determined in a secure, rapid and reproducible manner. The results are outputted in a joint report and stored in the integrated database.

Structure

The TitrIC user interface is subdivided into two main views:

- *Workplace*
Here the sample table is compiled and the run is started.
- *Database*
Here the determinations are saved; they can be displayed, administered, reprocessed and printed out.

Mode of operation

TitrIC controls **tiamo** and **MagIC Net** simultaneously.



In the sample table of **TitriC**, definition is made as to with which tiamo method and with which MagIC Net method the various samples will be measured. At the start of a determination, **TitriC** forwards all relevant information on to tiamo and MagIC Net. There the respective methods are processed, after their end the desired results are transmitted back to **TitriC**. **TitriC** compiles a joint report and stores the data in its database.

Only one software - **TitriC** - needs to be started, all other programs will be automatically started as well and also automatically closed again when **TitriC** is exited.


1.2 Online Help

Introduction

Calling up the Help

TitriC has an extensive and detailed Online Help that can be requested in two ways:

- **General request**

With the menu item **Help ▶ TitriC Help**, or the symbol  the Online Help with the topic *Welcome to TitriC* opens. From there you can jump via **Contents**, **Index**, **Search** or personal **Favorites** to the desired topic.







- **Context-sensitive request**

With the function key **[F1]** on the keyboard you can jump directly to the topic which will show information on the active element in **TitriC** (dialog window, tab).

Symbols and conventions

The following symbols and styles are used in this documentation:

<i>Database</i>	Link to other Help topics in which information is shown for the marked term.
Method	Dialog text Designation for names of parameters, menu items, tabs and dialog windows in the software.
100	Designation for parameter values in input fields.
File ▶ New	Menu or menu item; Path needed to reach a certain point in the program.
[Continue]	Button
1	Instruction step Carry out these steps in the sequence shown.

	Warning This symbol draws attention to a possible life hazard or risk of injury.
	Warning This symbol draws attention to a possible hazard due to electrical current.
	Warning This symbol draws attention to a possible hazard due to heat or hot instrument parts.
	Warning This symbol draws attention to a possible biological hazard.
	Caution This symbol draws attention to a possible damage of instruments or instrument parts.
	Note This symbol marks additional information and tips.

1.3 What is new about TitrIC 2.0?

Introduction





New software

- Titrators are controlled with **tiamo 1.3**, older tiamo versions are not supported.
- Ion chromatography instruments are controlled with **MagIC Net 1.1**, older MagIC Net versions are not supported. The change from IC Net to MagIC Net offers improved integration of ion chromatography in the overall solution **TitriC** and enhanced process stability.

- *Settings*
Edit settings for tiamo, MagIC Net, TitrIC and the Reprocessing.
- *Help*
Open Help, show program info.










2.2.2 Menu File

Menu item: **Workplace ▶ File**

 New sample table	Create new empty sample table.
 Open sample table	Open sample table and load it in the workplace.
 Save sample table as...	Save the sample table under a new name.
 Exit	End program.

2.2.3 Menu Sample table



Menu item: **Workplace ▶ Sample table**

 Insert new line...	Open the Edit line dialog for editing the sample data and for inserting new lines after the selected line in the sample table (<i>see Chapter 2.5.2, page 9</i>).
 Edit line...	Open the dialog Edit line for the selected line of the sample table (<i>see Chapter 2.5.2, page 9</i>).
 Delete line	Delete the selected line from the sample table.
 Reset sample table	Reset all of the lines of the sample table to prepared status, i.e. they can be carried out again. Not active when the workplace is in BUSY status.
 Remove marking	Remove marking of selected line(s) from the sample table.
 Update methods	Update selection of methods from tiamo and MagIC Net which are available for the editing of sample data (<i>see Chapter 2.5.2, page 9</i>).
 Copy	Copy selected line.
 Cut	Cut selected line.
 Insert	Paste copied line ahead of the selected line. If no line is selected, then the copied line will be pasted at the end of the sample table.







2.2.4 Menu View

Menu item: **Workplace / Database ▶ View**

 Show tiamo	Show tiamo window.
 Show MagIC Net	Show MagIC Net window.



2.2.5 Menu Settings

Menu item: **Workplace / Database ▶ Settings**

 Settings tiamo	Open dialog window with the settings for tiamo (<i>see Chapter 4.1, page 28</i>).
 Settings MagIC Net	Open dialog window with the settings for MagIC Net (<i>see Chapter 4.2, page 29</i>).
 Settings TitrIC	Open dialog window with the settings for TitrIC Net (<i>see Chapter 4.3, page 30</i>).
 Settings Reprocessing	Open dialog window with the settings for reprocessing (<i>see Chapter 4.4, page 31</i>).

2.2.6 Menu Help

Menu item: **Workplace / Database ▶ Help**

 Info	Display information about the program and the installation.
 TitrIC Help	Open TitrIC Help.

2.3 Toolbar

Program part: **Workplace**

All of the menu items in the **Sample table** menu can be accessed directly via symbols in the toolbar.

2.4 Sequence control

Program part: **Workplace**

The sample table is started, interrupted or stopped in the sequence control.

Operating elements



Start determination

Start of the first determination in the sample table that has **prepared** status. The button switches to **[STOP]** as soon as a determination is running.



Stop determination

Immediate stop of the determination of a sample table that is currently running. The button switches to **[START]** as soon as the determination is completed.



Interrupt tiamo determination

This button is used to interrupt the ongoing tiamo determination. The button is enabled as soon as a determination is running. If the stop can be triggered, then it will be yellow, otherwise gray. When **[Pause]** is pressed, this button will be replaced in the display by **[Cont]**.



Resume tiamo determination

Start interrupted tiamo determination. The button is only present in the status **PAUSE** (tiamo determination interrupted). Pressing **[Cont]** will cause this button to be replaced again in the display by **[Pause]**.

Status display

Status

Displays the status of the workplace and the selected determination.

Selection	READY BUSY PAUSE ERROR
-----------	-------------------------------------

READY

Ready for the start of a determination.

**BUSY**

Determination running.

PAUSE

tiamo determination interrupted.

ERROR

Error.

2.5 Sample table

2.5.1 Properties sample table

Program part: **Workplace**

The sample data and the status of a determination are displayed in tabular form in the sample table.

Each line corresponds to a determination.

The table cannot be edited or sorted directly. Lines which are selected by the user are marked with **green**.

Sample data

For the meaning of the columns please refer to (*see Chapter 2.5.2, page 9*).

Status

The status of a determination is described by the following columns:

Status

Indicates the status of the determination, dependent upon which the sample table line of the determination will be marked with color.

Selection	prepared running finished canceled
Default value	prepared

prepared

The determination can be started. The line is **light gray**.

running

The determination is running, the sample data is blocked for editing. The line is **dark gray**.

finished

The determination is processed. The line is **gray**.

canceled

The determination was canceled. The line is **orange**.

tiamo finished

on | off (Default value: **off**)

Indicates whether the tiamo method has finished.

MagIC Net finished

on | off (Default value: **off**)

Indicates whether the MagIC Net method has finished.

2.5.2 Edit sample data

Menu item: **Workplace ▶ Sample table ▶ Insert new line / Edit line**

The dialog can also be opened with a double-click on the sample table line.

tiamo method

Selection of the tiamo method with which the determination is to be carried out.

MagIC Net method

Selection of the MagIC Net method with which the determination is to be carried out.

Comment

Freely definable comment on the determination, that is saved together with the determination.

Sample ID

Identification of the sample.

Sample position

Position of the sample on the rack of a sample changer. This number is increased automatically by one when a new line is inserted.

Sample size tiamo

Sample size for tiamo method.

Dilution

ID2 for tiamo method, dilution for MagIC Net method.

Sample type MagIC Net

Selection of the sample type for MagIC Net method. The selection depends on the MagIC Net method.

Volume MagIC Net

Volume for MagIC Net method.

Status

Display of the status of the sample (*see "Status", page 8*).



Functions

[OK]

Apply the sample data entered in the respective line of the sample table. The same function can also be triggered by pressing the **[Enter]** key.

[Cancel]

Close the input window. The current sample data will not be applied in the sample table thereby.

[<]

Apply the sample data entered in the respective line of the sample table and jump to the preceding line.

[>]

Apply the sample data entered in the respective line of the sample table and jump to the next line.

2.5.3 Sample table file format

TitriC sample tables are saved as CSV files.

3 Database

Definiton

The term **Database** is used in **TitriC** to refer to the program part in which the determinations saved can be displayed, managed, reprocessed and where reports can be created.

3.1 Database - Desktop

Program part: **Database**

Database symbol



Clicking on the database symbol in the vertical bar on the left opens the program part **Database** while, at the same time, the database symbol is shown in color.

Elements

The desktop of the program part **Workplace** comprises the following elements:

- *Menu bar*
- *Toolbar*
- *Filter selection*
- *Determination overview*

3.2 Menu bar

3.2.1 Database - Main menus

Program part: **Database**

The menu bar in the program part **Database** contains the following main menu items:




- *File*
Create new sample table, Open and save sample table.
- *Database*
Edit database.
- *View*
Display tiamo or MagIC Net.



- *Settings*
Edit settings for Tiamo, MagIC Net, TitrIC and the Reprocessing.
- *Help*
Open Help, show program info.








3.2.2 Menu File

Menu item: **Database ▶ File**

 Current report	Display the report of the current determination (<i>see Chapter 3.6, page 15</i>).
 Database report	Display the report of the selected determination (<i>see Chapter 3.6, page 15</i>).
Select all	Select all determinations of the database.
Export results	Export selected determinations as CSV file (<i>see Chapter 3.7, page 17</i>).
 Exit	End program

3.2.3 Menu Database

Menu item: **Database ▶ Database**

 Edit filter...	Open the Settings Filter dialog for managing and editing the database filters (<i>see Chapter 3.8, page 17</i>).
 Reprocess...	Open the Settings reprocessing dialog for the selected determinations (<i>see Chapter 4.4, page 31</i>).
 Delete determinations	Delete the selected lines from the determination overview.
Archive	Open the dialog Archive database (<i>see Chapter 3.10, page 18</i>).
Settings	Open the dialog Settings database (<i>see Chapter 3.11, page 19</i>).
 Administrator settings ▶	
 Start database editor	Open the Database editor dialog to manage and edit TitrIC databases (<i>see Chapter 3.12.1, page 21</i>).
 Generate database	Create new TitrIC database and save it (<i>see Chapter 3.12.2, page 24</i>).
 Activate database	Activate database (<i>see Chapter 3.12.3, page 24</i>).

**User-defined
result**

Create user-defined result (see Chapter 3.12.4, page 24).

3.2.4 Menu View

Menu item: **Workplace / Database ▶ View****Show tiamo**

Show tiamo window.

**Show MagIC Net**

Show MagIC Net window.

3.2.5 Menu Settings

Menu item: **Workplace / Database ▶ Settings****Settings tiamo**

Open dialog window with the settings for tiamo (see Chapter 4.1, page 28).

**Settings MagIC Net**

Open dialog window with the settings for MagIC Net (see Chapter 4.2, page 29).

**Settings TitrIC**

Open dialog window with the settings for TitrIC Net (see Chapter 4.3, page 30).

**Settings Reprocessing**

Open dialog window with the settings for reprocessing (see Chapter 4.4, page 31).

3.2.6 Menu Help

Menu item: **Workplace / Database ▶ Help****Info**

Display information about the program and the installation.

**TitrIC Help**

Open TitrIC Help.



3.3 Toolbar

Program part: **Database**

Some of the functions of the database program part can be accessed directly via symbols in the toolbar.



Open the **Edit filter settings** dialog for managing and editing the database filters (*see Chapter 3.8, page 17*).



Open the **Settings reprocessing** dialog for the selected determinations (*see Chapter 4.4, page 31*).



Delete the selected lines from the determination overview.



Display the report of the current determination (*see Chapter 3.6, page 15*).



Display the report of the selected determination (*see Chapter 3.6, page 15*).



Sort determinations in the overview according to **Date ascending** or **descending**.

3.4 Filter selection

Program part: **Database**

Select filter and apply to the database. All of the filters defined in TitrIC are available for use.

3.5 Determination overview

Program part: **Database**

The determinations of the database are displayed in tabular form.

Each line corresponds to a determination.

The determination overview can be filtered and sorted.

The databank settings can be used to change which columns are visible in the determination overview.

3.6 Report

Menu item: **Database ▶ File ▶ Current report / Database report**

The TitrIC report summarizes the titration and ion chromatography data for a determination. It contains the following fields:

Printing date

Date on which the report was generated.

General data

The general data is generated for every determination and output in the report.

Sample ID

Sample ID of the determination.

Date

Date on which the determination was recorded.

Time

Time at which the determination was recorded.

Comment

Comment on the determination.

System comment

Automatically generated comment of the system, which describes whether the limit value for the ion balance [%] was observed.

Titration data

The database settings can be used to change which titration data is output in the report.



IC data

The database settings can be used to change which IC data is output in the report.

Balances

Titration and IC data is summarized in the balances. These results are always generated; whether they appear in the report or not can be set in the data-bank settings.



Note

In order to be able to compare different ions and to generate an ion balance, all of the concentrations that were determined are converted to the equivalent value for monovalent ions [mEq/L].

1 mEq/L corresponds to 1 mmol/L of a monovalent ion.

Sum anions [mEq/L]

Sum of the concentrations of all anions.

Sum cations [mEq/L]

Sum of the concentrations of all cations.

Ion balance [mEq/L]

= Total cations [mEq/L] – Total anions [mEq/L].

- **Positive value**
More mEq/L cations than anions were found.
- **Negative value**
More mEq/L anions than cations were found.

Ion balance [%]

= 100 * Ion balance [mEq/L] / (Total cations [mEq/L] + Total anions [mEq/L]).

Functions

[Print]

Open standard printing dialog, the TitrIC report can be printed out on any conventional printer.

[<]

Display the report of the previous determination in the database.

[>]

Display the report of the next determination in the database.

3.7 Export

Menu item: **Database ▶ File ▶ Export results**

The data is exported in a **CSV file**.

All of the data fields present in the database are exported.

Each determination corresponds to one line in the CSV file.

Each data field corresponds to one column. The TitrIC settings can be used to configure whether the title of the field designations are exported into the CSV file as column headings.

3.8 Settings filter

Menu item: **Database ▶ Edit filter...**

Filter list

The list of filters that are defined in TitrIC is located on the left-hand side of the dialog.

Filter properties

The properties of the selected filter are displayed on the right-hand side of the dialog. The significance of the properties is described in the *Edit filter* dialog.

Functions

[New]

Open dialog *Edit filter* for new filter.

[Edit]

Open dialog *Edit filter* for the selected filter.

[Delete]

Delete selected filter.

[OK]

Closes the dialog and applies the selected filter to the database.

[Cancel]

Closes the dialog.



Open dialog for selecting the directory.

Delete data records after archiving

on | off (Default value: **off**)

The archived data records are deleted from the database after the archiving has been completed.

Protocol

Source and target directory and the archived files are listed.

Functions

[OK]

Start archiving.

[Cancel]

Cancel archiving and close dialog.

3.11 Settings database

Menu item: **Database ▶ Settings database**

The output of the determination data can be edited in the **Settings database** dialog window. Configurations are set up here as to which data will be displayed in the **Determination overview** and in the **TitriC report**.

Which determination data is available for use is a property of the TitriC database. The **General data** and the **Balances** are always present, **Titration data** and **IC data** are database-specific.

General data

The general data is generated for every determination.

Sample ID

Sample ID of the determination.

Date

Date on which the determination was recorded.

Time

Time at which the determination was recorded.

Comment

Comment on the determination.



Titration data

The titration data of a determination is configured in the database editor.

IC data

The IC data of a determination is configured in the database editor.

Balances

Titration and IC data is summarized in the balances. These results are always generated.



Note

In order to be able to compare different ions and to generate an ion balance, all of the concentrations that were determined are converted to the equivalent value for monovalent ions [mEq/L].

1 mEq/L corresponds to 1 mmol/L of a monovalent ion.

Sum anions [mEq/L]

Sum of the concentrations of all anions.

Sum cations [mEq/L]

Sum of the concentrations of all cations.

Ion balance [mEq/L]

= Total cations [mEq/L] – Total anions [mEq/L].

- **Positive value**
More mEq/L cations than anions were found.
- **Negative value**
More mEq/L anions than cations were found.

Ion balance [%]

= $100 * \text{Ion balance [mEq/L]} / (\text{Total cations [mEq/L]} + \text{Total anions [mEq/L]})$.

Functions

[OK]

Apply settings and close dialog.

[Cancel]

Reject modifications and close dialog.

3.12 Administrator settings



Note

The administrator settings should be edited only by very experienced users.

The database is configured in this part, new databases can be generated and activated.

Data could get lost through incorrect handling!

3.12.1 Database editor

3.12.1.1 Database editor - Desktop

Menu item: **Database** ▶ **Administrator settings** ▶ **Start database editor**

The desktop of the dialog window **Database editor** comprises the following elements:

- *Menu bar*
- *Toolbar*
- *Result table*

3.12.1.2 Menu bar

3.12.1.2.1 Database editor - Main menu



Menu item: **Database** ▶ **Administrator settings** ▶ **Start database editor**

The menu bar in the **Database editor** program part contains the following main menu items:





- *Database*
Manage databases.
- *Result table*
Edit result table of the database.
- *Info*
Information about the database editor.

3.12.1.2.2 Menu Database

Menu item: **Database editor** ▶ **Database**




 New database...	Create new empty database scheme.
 Open database...	Select and open saved database scheme (*.con).



 Save database	Save the currently opened database. The database scheme (*.con) is saved and the associated database file (*.script) is generated and saved.
 Save database as...	Save the opened database under a different name. The database scheme (*.con) is saved and the associated database file (*.script) is generated and saved.
 Delete database	Select and delete saved database scheme (*.con).
 Exit	Close database editor.


3.12.1.2.3 Menu Result table

Menu item: **Database editor** ▶ **Result table**

 Insert line	Open the Edit results dialog for editing the result and for inserting new lines ahead of the selected line in the result table (see Chapter 3.12.1.5, page 23).
 Edit line	Open the dialog Edit result for the selected line of the sample table (see Chapter 3.12.1.5, page 23).
 Delete lines	Delete the selected line from the result table.

3.12.1.2.4 Menu Info

Menu item: **Database editor** ▶ **Info**

 Info	Display information about the database editor.
---	--

3.12.1.3 Toolbar

Menu item: **Database** ▶ **Administrator settings** ▶ **Start database editor**

Some of the functions of the **Database editor** dialog window can be accessed directly via symbols in the toolbar.



Save the currently opened database. The database scheme (***.con**) is saved and the associated database file (***.script**) is generated and saved.



Save the opened database under a different name. The database scheme (***.con**) is saved and the associated database file (***.script**) is generated and saved.



Select and delete saved database scheme (***.con**).



Open the **Edit result** dialog for editing the result and for inserting new lines ahead of the selected line in the result table (see Chapter 3.12.1.5, page 23).



Open the dialog **Edit result** for the selected line of the sample table (see Chapter 3.12.1.5, page 23).



Delete the selected line from the result table.

3.12.1.4 Result table

Menu item: **Database ▶ Administrator settings ▶ Start database editor**

All user-defined results for the current TitrIC database are displayed in tabular form in the result table of the database editor.

Each line corresponds to one result. For the meaning of the columns, see the **Edit result** dialog.

The result table can not be edited or sorted directly. The results are edited either through the menu **Result table** or by double-clicking on a line.

3.12.1.5 Edit result

Menu item: **Database ▶ Administrator settings ▶ Edit result**



Note

The name of the result must be unambiguous in TitrIC!

Name

The result name that is displayed in TitrIC. Is used to label the column in the determination overview and as a field name in the TitrIC report.

Category

This setting determines from which source TitrIC extracts the result and how it is displayed in the TitrIC report.

Selection	TIT IC
-----------	----------

TIT

The result is extracted from the data of the tiamo determination and is displayed in the TitrIC report under the titration data.



Note

Only results can be edited which were created in the database with the name **User-defined result #**.

A user-defined result can no longer be edited directly once it has been renamed.

5 user-defined results are contained in the database supplied which can be edited directly.

3.12.5 Data assignment

The results are communicated to TitrIC by tiamo and MagIC Net per **CSV file**. The following conditions must be fulfilled in order to ensure that this functions smoothly:

- The tiamo method used must contain a corresponding export command. The tiamo and MagIC Net method used must contain a corresponding export command when TitrIC determinations are being reprocessed.
- The export template must use the correct settings.
- The export files must contain the correct result fields in the correct sequence.
- The result names in tiamo or MagIC Net must match the search keys in the database.



Note

You will find detailed information concerning the following subjects in the Online Help of tiamo and MagIC Net:

- Method generation
- Data export and export templates
- Definition of results and naming conventions

3.12.5.1 Export template tiamo

Settings

Target directory

Must match in TitrIC and in the export template of tiamo.

- Must match **Export file** in the **Settings tiamo** dialog.
- Must match **Export file tiamo** in the **Settings reprocessing** dialog.

File type

The ***.csv (Comma Separated)** type must be selected.



File name

The option **Fixed file name (attach data)** must be selected.

The name must match in TitrIC and in the export template of tiamo.

- Must match **Export file** in the **Settings tiamo** dialog.
- Must match **Export file tiamo** in the **Settings reprocessing** dialog.

Data fields

The following fields **must** appear at the beginning in this sequence:

- **Start counter** (from **Determination ▶ Identification**)
- **ID1.Name** (from **Sample ▶ Identifications**)
- **ID1.Value** (from **Sample ▶ Identifications**)

Afterwards follow the results which are to be transferred from tiamo to TitrIC. The sequence of the results is not decisive, nevertheless the fields **RSxx.Name**, **RSxx.Value** and **RSxx.Unit** must be present in this sequence for every result.

Result assignment

The following rules apply for assigning the results in the TitrIC database to the tiamo results:

- TitrIC results with the **Category TIT** are assigned to tiamo results.
- The TitrIC result is assigned if its **Search key** matches the **Result name** of the tiamo result.



Note

The following results must always be available in tiamo, they are used for the calculation of the balances (*see Chapter 3.11, page 19*):

- **anions titration**
- **cations titration**

3.12.5.2 Export template MagIC Net

Settings

Target directory

Must match in TitrIC and in the export template of MagIC Net.

- Must match **Export file MagIC Net** in the **Settings reprocessing** dialog.

File type

The ***.csv (Comma Separated)** type must be selected.

File name

The option **Fixed file name (attach data)** must be selected.

The name must match in TitrIC and in the export template of MagIC Net.

- Must match **Export file MagIC Net** in the **Settings reprocessing** dialog.

Data fields

The following fields **must** appear at the beginning in this sequence:

- **Start counter** (from **Determination ▶ Identification**)
- **Info 1** (from **Sample ▶ Identifications**)
- **Ident** (from **Sample ▶ Identifications**)

Afterwards follow the results which are to be transferred from MagIC Net to TitrIC. The sequence of the results is not decisive.

Result assignment

The following rules apply for assigning the results in the TitrIC database to the MagIC Net results:

- TitrIC results with the **Category IC** are assigned to MagIC Net results.
- The TitrIC result is assigned:
 - If its **Search key** matches the **Result name** of one **user-defined** MagIC Net result (**RS.'search key'**).
 - If its **Search key** matches the **Component name** of the **component result CONC** of MagIC Net (**RS.'analysis name'.'search key.CONC'**).



Note

The following results must always be available in MagIC Net, they are used for the calculation of the balances (*see Chapter 3.11, page 19*):

- **anions IC**
- **cations IC**

4.2 Settings MagIC Net

Menu item: **Settings** ▶ **Settings MagIC Net**

Settings

Shut down IC devices automatically

on | **off** (Default value: **on**)

IC devices are shut down automatically after the TitrIC sample table has been processed.

MagIC Net window

The setting defines how MagIC Net is displayed.

Selection	show minimize hide
-----------	---

show

The window is displayed, it is normally accessible.

minimize

The window is minimized in size, it can be opened again with the Windows task bar.

hide

The window is hidden, it is not accessible via Windows.

Program directory



Path to the directory in which the file **Magicremote.exe** is located. The path is entered automatically when TitrIC is installed.

Open dialog for selecting the directory.

TCP/IP Port

Entry of the TCP/IP port through which TitrIC communicates with MagIC Net. The port is assigned automatically when TitrIC is installed.

MagIC Net workplace

Selection of the MagIC Net workplace at which the TitrIC determinations are to be carried out.

Functions

[Connection test]

A check is made as to whether communications with MagIC Net functions via the TCP/IP port.

**[OK]**

The settings are saved and the dialog is closed.

[Cancel]

The dialog is closed and modifications are rejected.

4.3 Settings TitrIC

Menu item: **Settings ▶ Settings TitrIC**

Export

CSV export

on | off (Default value: **off**)

Export TitrIC results after each determination.

Column headers in CSV file

on | off (Default value: **on**)

In addition, the field designations are output as column headings with CSV export.

Target directory

Directory into which the CSV file is to be exported.



Open dialog for selecting the directory.

File name

Entry of a name for the CSV file.

Report

Print report after determination

on | off (Default value: **on**)

Export and print TitrIC results after each determination.

Printer

Select the printer.

Selection **All printers which are configured in Windows.**

Show ion balance in the report

on | off (Default value: **on**)

Output ion balance in the TitrIC report.

Limit for ion balance [%]

Entry of the limit value. The value is monitored, the result is output in the **System comment** of the TitrIC report.

Backup**Daily database backup**

on | off (Default value: **on**)

A backup is made of the current TitrIC database every day.

Target directory

Directory in which the database backup is to be stored.



Open dialog for selecting the directory.

Backup time

Entry of the time at which the backup is to take place. Format: **hh:mm:ss**

Functions**[OK]**

The settings are saved and the dialog is closed.

[Cancel]

The dialog is closed and modifications are rejected.

4.4 Settings reprocessing

Menu item: **Settings ▶ Settings Reprocessing**

Settings**Reprocess titration data**

on | off (Default value: **on**)

The tiamo export file is extracted and the TitrIC results are recalculated with it.

Reprocess IC data

on | off (Default value: **on**)

The tiamo export file is extracted and the MagIC-Net results are recalculated with it.



Export file tiamo

File from which the reprocessed tiamo data is extracted.



Open dialog for selecting the export file.

Export file MagIC Net

File from which the reprocessed MagIC-Net data is extracted.



Open dialog for selecting the export file.

Functions

[OK]

The settings for reprocessing are saved and the dialog is closed.



Note

If the dialog was opened via the menu items **Database ▶ File ▶ Reprocess...**, then the reprocessing of the selected determinations will be started simultaneously. The data of the selected determinations in TitrIC will be overwritten with the reprocessed values.

[Cancel]

The dialog is closed and modifications of the settings for reprocessing are rejected.

5 How to proceed?

5.1 Start TitrIC

How to proceed?



Note

- MagIC Net and tiamo must be closed before the start of TitrIC.
- When starting TitrIC the tiamo server and the MagIC Net server must be started. This takes place in the background when starting the computer. The time demanded by this operation depends on the configuration of the computer.

1 Switch on all instruments.

2 Start TitrIC.

MagIC Net, tiamo and TitrIC are started.

3 If access to MagIC Net and tiamo is password-protected, then the user must first log on in MagIC Net and then in tiamo. TitrIC itself has no user restrictions.

5.2 Exit TitrIC

How to proceed?

1 Exit TitrIC with **File ► Exit**.

TitriC, tiamo and MagIC Net are closed.

- 5 Define which data is to be reprocessed and specify paths to the export files of the reprocessed titration or IC data. The reprocessing is started with **[OK]**.

5.4 Export

How to proceed?

- 1 Change to the program part **Database**.
- 2 Select all determinations which are to be exported.
- 3 Open the dialog for saving with the menu items **File ▶ Export results**.
- 4 Select target directory, specify file name and save.

5.5 Restoring database

How to proceed?



Note

The files (*.log, *.properties, *.script) of the database, which is to be activated, must be in the directory ...\\Application Data\\Titric\\Database.

- 1 Open the dialog for selection of the database in the **Database** program part with the menu items **Database ▶ Administrator settings ▶ Activate database**.
- 2 Select and activate the desired database file (*.script).



Note

This action requires TitrIC to be restarted.

TitriC is closed and the previous database is saved automatically as **Db_Backup#.script**.



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