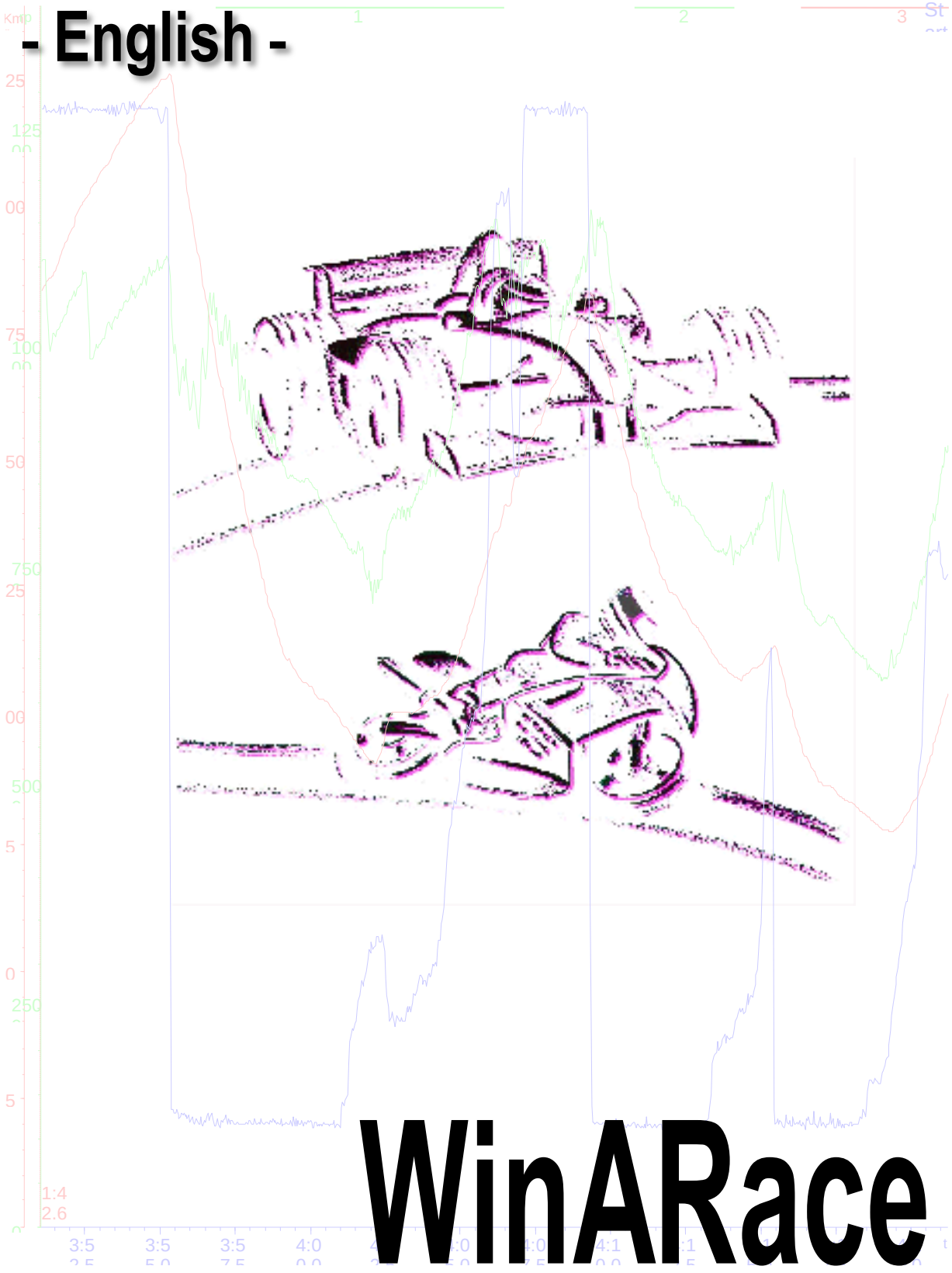
2d-datarecording.com

- English -



WinARace

modified 02/12/15

Content

Symbols used in the text

These paragraphs contain tips and practical advice for working with the 2D software

In the paragraphs highlighted with this symbol, you will find additional information and it is very important that you follow the instructions given.

Documentation reference

- A user manual reference number is provided so the user can seek further assistance

1 Introduction to WinARace

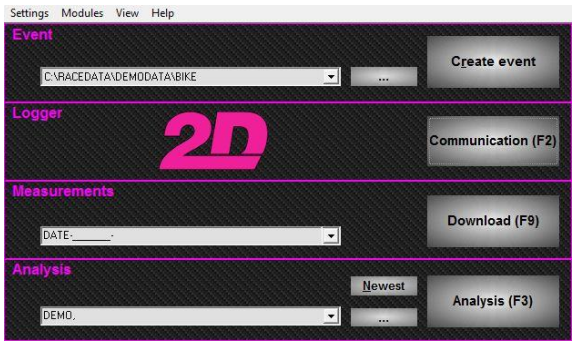
The program *WinARace* is the front-end tool of 2D. From here you can start other software modules, like *WinIt* (communication tool), *SpecView* (data administration) or the analysis tool *2D Analyzer*. It organizes the folder structure of your data with events and master names.

In *WinARace* you are able to:

- Define and change the current *Event*
- Select the start measurement for the analysis tool
- Start the *2D Analyzer*
- Select the master name
- Start a download
- Start *WinIt*
- Set the software language
- Select the user level
- Set some important communication settings (same window as in *WinIt* – main menu item “Settings” ⇒ “Options”)
- Activate/deactivate the protocol function
- Configure the 2D Toolbar
- Get version information of the various software modules

2 WinARace and its functions

You can split up the starting window of *WinARace* into five sections (refer to the next figure)



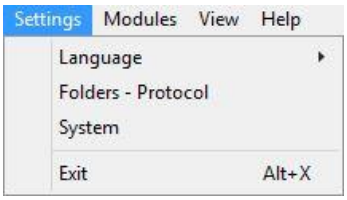
1) Main menu
2) Event section
   Event/measurement administration
3) Logger section
   Logger communication
4) Measurements section
   Measurement naming & download
5) Analysis section
   Measurement selection & analysis

2.1 Main menu

The main menu consists of four submenus:

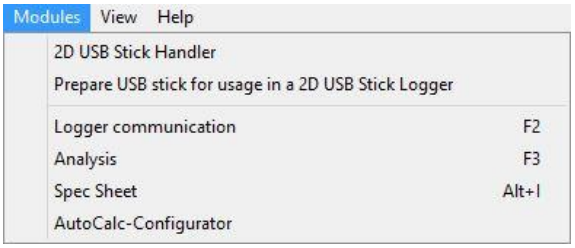
- Settings
- Modules
- View
- Help

2.1.1 Settings menu



- **Language:** here you can select the language you want to use in your software; German, English, French, Italian, Spanish or Japanese[1]
- **Folders – Protocol:** opens a window where you can check the folder structure and the protocol function of the software
- **System:** opens a window where you can change some system-settings, please refer to section 3.1
- **Exit:** closes the program

2.1.2 Modules menu



- **2D USB Stick Handler:** starts the program *2D Stick Handler* to manually download recorded data from a connected 2D/USB stick[2]
- **Prepare USB stick for usage in a 2D USB Stick Logger:** prepares a USB stick; such a prepared USB stick is called a 2D stick[2]
- **Logger communication:** starts the program *WinIt*
- **Analysis:** starts the program *2D Analyzer*
- **Spec Sheet:** starts the program *SpecView* and shows the selected measurement´s data
- **AutoCalc-Configurator:** starts the program *2D AutoCalc Configurator*

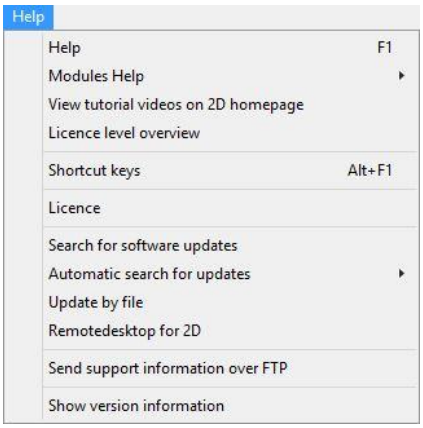
[1] Please keep in mind that you need a Windows with Japanese language to show the characters correctly.
[2] Please refer to section 3.1 if this function is not available, there it is described on how to activate it.

2.1.3 View menu

- **Toolbar:** here you can decide whether you want to see the toolbar or not and you can modify your toolbar; for further information refer to section 3.2
- **Show statusbar:** shows or hides the status bar
- **Show main menu:** shows or hides the main menu
- **Show window frame:** shows or hides the window frame

You have always access to the main menu of *WinARace*: right-mouse click on the *WinARace* window opens the main menu.

2.1.4 Help menu



- **Help:** starts the program´s online help
- **Modules Help:** here you can select help for different software modules
- **View tutorial videos on 2D homepage:** opens the 2D homepage where you can see the tutorial videos
- **Licence level overview:** opens the 2D homepage where you can see an overview of the license levels and their functions
- **Shortcut keys:** opens a table with shortcut keys and their meaning
- **Licence:** opens the software license dialogue; there you can enter the license key
- **Search for software updates:** searches online for software updates
- **Automatic search for software updates:** settings for automatic software updates
- **Update by file:** In some companies connection to the internet for update is not possible due to security settings. In this case it is possible to get an update file from 2D and import it with this function.
- **Remotedesktop for 2D:** Support tool to give the 2D support the possibility to remotely connect to your computer – you will be requested by the 2D support to start it.
- **Send support information over FTP:** sends an information file to 2D with license and firmware update notifications
- **Show version information:** opens a window with information about your software version and license

2.2 Event section

An event is the directory where your measurement´s data is stored. It helps you to organize your data. Normally you create an event for each race weekend (or other kind of event you´re attending). It can be named as you want, for example the circuit or name of the event. Please refer to sections 3.3 and 3.4 for further information.

In the *Event* section you can create a new event or change the current event in two different ways.

To create a new event click on <**Create event**>.

The first way to change the event is to select a directory directly from the drop-down list. There you can choose from the last eleven directories used. The second way is to load a directory from the event explorer. To start the event explorer click on < **…** >. Select a new directory in the tree view on the left and confirm the directory with <**OK**> - afterwards the directory is displayed in the history list.

For further information on how to create an event, the versatile functions of the event explorer and the data structure in general please refer to section 3.

2.3 Logger section

By clicking on the button <**Communication (F2)**> the program *WinIt* starts. In *WinIt* you can change the setting of your logger and other system parts. For further information please refer to the *WinIt* manual[3].

2.4 Measurements section

In the *Measurements* section you select the data´s master name and download the recorded data directly from a connected logger.

The master name is part of the data file name. It helps you to identify more easily the session (free practice, qualifying, race, test,…). The drop-down list contains up to 15 different (last used) master names. You can simply select one of them or enter a new one (depending on your license level). For further information on master names and the nomenclature of the data please refer to section 3.5.

To download data from a connected logger click the button <**Download (F9)**>.

2.5 Analysis section

In the *Analysis* section you have three different options to select a measurement you want to start with in the analysis tool *2D Analyzer*.

1. You can select a measurement from the drop-down list. It is a history list of the eleven last used measurements of the current event.
2. Select the newest measurement of the event with the button <**Newest**>.
3. You can select a measurement of the current event in the file explorer. To start the file explorer click the button < **…** >.

To start the *2D Analyzer* click on <**Analysis (F3)**>.

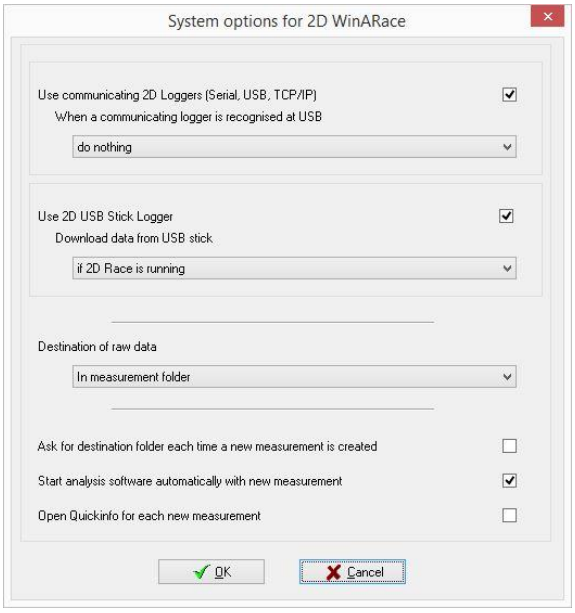
For further information please refer to the *Analyzer* manual[4].

[3] The manual can be downloaded from: 2d-datarecording.com/en/support/downloads/manuals ⇒ WinIt
[4] The manual can be downloaded from: 2d-datarecording.com/en/support/downloads/manuals ⇒ Analyzer

3 Detailed information on WinARace functions

3.1 System Settings

You get to the System Settings via *WinARace*, Settings ⇒ System.



Here you can enable/disable the use of the different ways to handle the loggers. “Communicating 2D Loggers” means any logger you connect directly to your PC (via USB, TCP/IP, etc.). In addition you are able to select what should be done if such a logger is connected: do nothing, start a download or start *WinIt*.

If you enable “Use 2D USB Stick Logger”, you activate all software modules you need to handle the USB sticks with – to prepare them for recording or to download recorded data. In the dropdown-list you can select when the data should be downloaded if a stick with recorded data is detected: not automatically (you need to start the download manually), always or only if *WinARace* is running.

In the next dropdown-list you can modify the settings for the raw data.

At the bottom you have additional options on what should be done if data is downloaded.

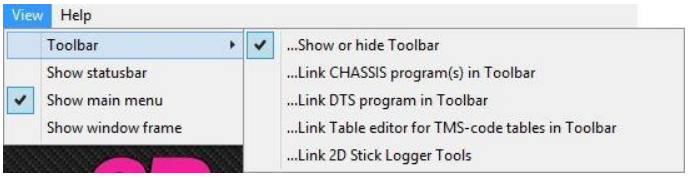
Confirm your changes with <**Ok**>.

3.2 Toolbar

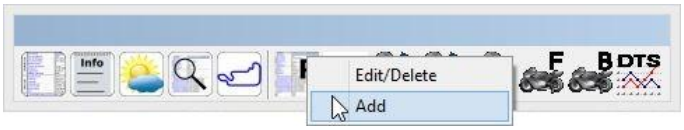
The *Toolbar* enables quick access to other programs or documents. At the beginning there are often several programs and documents already linked in:

There are two ways to modify your toolbar:

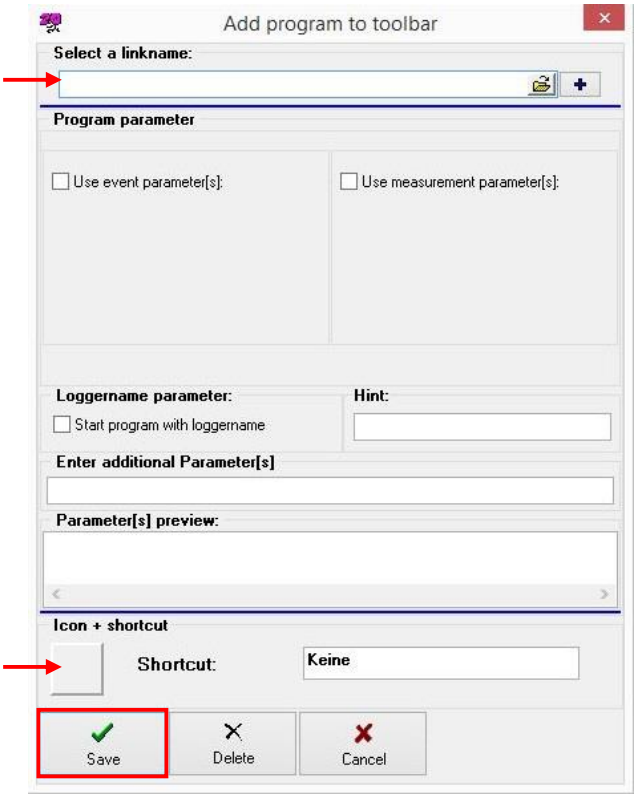
1. Add default programs via the toolbar menu – *View*, *Toolbar* ⇒ <**… Link XXX**>



2. Right-mouse click on your toolbar



- If you choose <**Edit/Delete**> you can modify or delete some of the toolbar entries.
- If you choose <**Add**> you can easily add another entry: Select the program/document you want to add, an icon (.bmp or .ico-format) and confirm with <**Save**>.



Typical icons used in the toolbar are:


Starts SpecView

Opens a window to enter information on the selected measurement. It will modify the corresponding SpecSheet.


Opens a window to enter information on the weather condition


Starts a SpecSheet search


Opens a window with the race track of the selected event

Opens the permanent SpecSheet

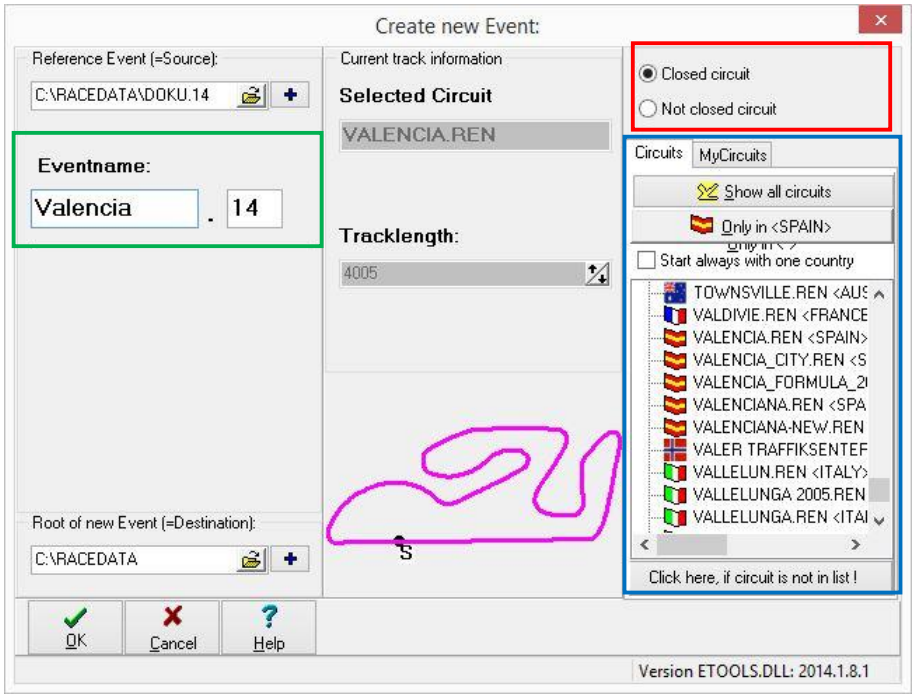
Starts the program *WFormel*


For working with the TRSS

Opens a linked PDF file

3.3 How to create an event

To create an Event click on <**Create new event**> in *WinARace*. It opens the following window:



1. Select on the right-hand side if it is a closed circuit or not (marked in red)
2. Select a racetrack if it is a closed circuit (marked in blue)

There are two different circuit tabs:

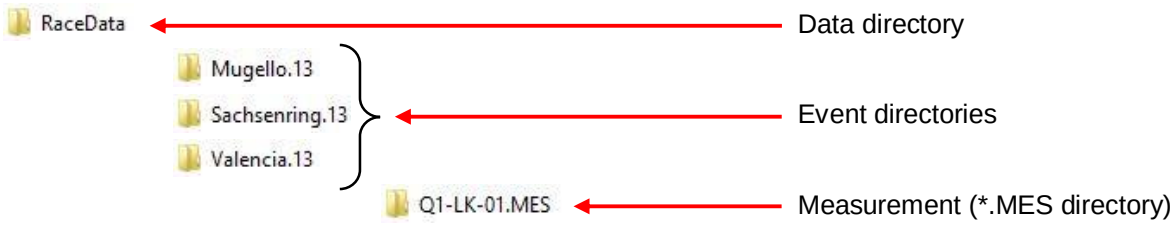
1. The tab **"Circuits"**: Includes a list of **pre-defined tracks** delivered with the 2D race software.
2. The tab **"MyCircuits"**: Contains track maps which have been **created by the user** via the analysis tool *2D Analyzer*.

If a track is not listed, select <**Click here if circuit is not in list**> and a basic circuit will be selected *(Base.ren)*.

3. Enter a name in the field "*Eventname"* (marked in green)
4. Confirm your event with <**OK**>

3.4 General data structure of measurement data

All measurement data are stored in the *RaceData* folder (e.g. *C:\RaceData*). In this folder you can find your events. Every single event contains information about the particular racetrack and the measurement data.



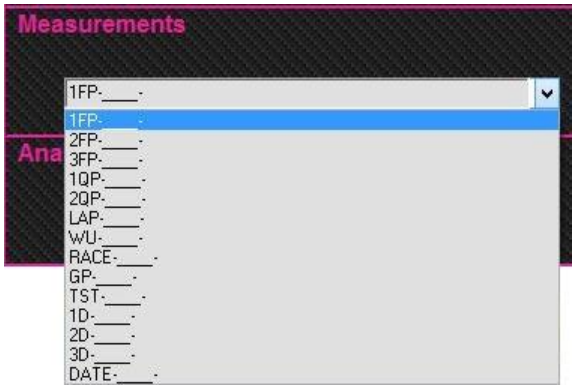
3.5 Measurement nomenclature (master names)

The measurement´s name consists of three parts – the master name, (part of) the logger name and the number of download.

For example:

Q1-LK-01.MES	⇒	master name: Q1 (qualifying 1) logger name: LK number of download: 01 (first download)
Test-CC71-03.MES	⇒	master name: Test logger name: CC71 number of download: 03 (third download)
1126-AL22-05.MES	⇒	master name: DATE (date of data download, e.g. 26.11.) logger name: AL22 number of download: 05 (fifth download)

Some of the default master names are:



- 1FP- (Free Practice 1)
- 2FP- (Free Practice 2)
- 3FP- (Free Practice 3)
- 1QP- (Qualifying 1)
- 2QP- (Qualifying 2)
- LAP- (Lap)
- WU- (Warm Up)
- Race- (Race)
- GP- (Grand Prix)
- TST- (Test)
- 1D- (Day 1)
- 2D- (Day 2)
- 3D- (Day 3)
- DATE- (current date information)

"DATE-___-" is a special master name. It is used to create measurement names containing information about the date when the measurement was downloaded. The software replaces the part "DATE" of the master name by the month and day at which the measurement was created. The format is MMDD, which means the first two characters are replaced by the month and the next two by the day.

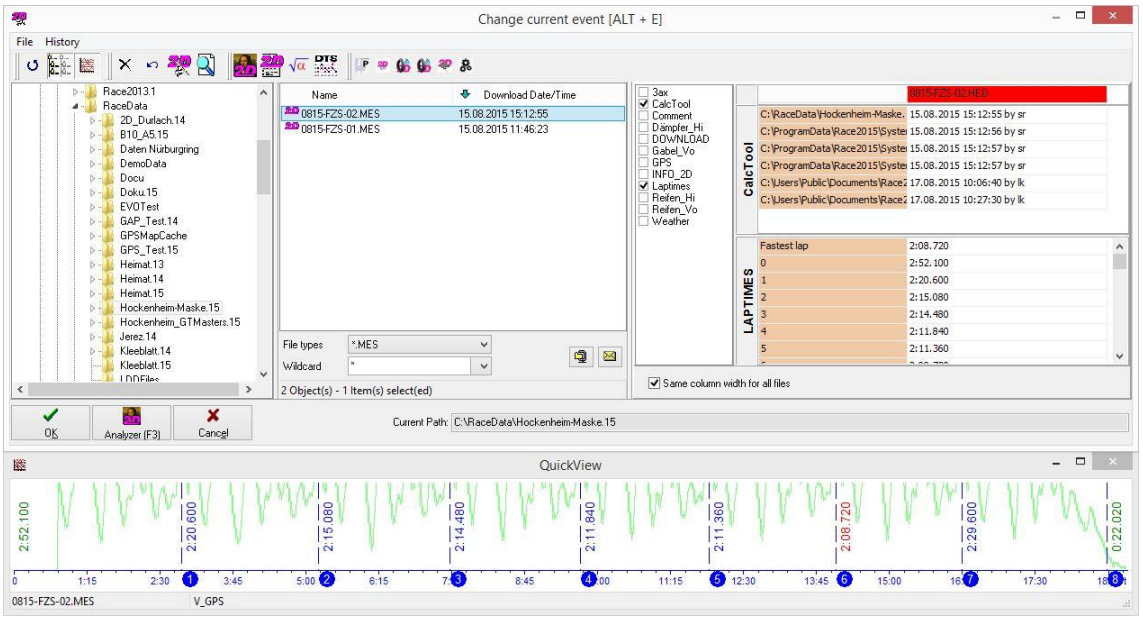
The number of underscores (_) specifies how many characters of the logger´s name are taken to create the file name (starting at the end).

Depending on the license level of your software you may specify your own master names.

3.6 Event selecting – the 2D event explorer

Within the 2D event explorer you can select an event or change the settings of its measurements. To start the event explorer click on < **...** > in the Event section.

The event explorer offers various options:



At the top of the event explorer you´ll find:

- File:
- ⇒ Copy selected measurement(s)
- ⇒ Delete measurement(s)
- ⇒ Rename measurement(s)
- ⇒ Run cal file
- ⇒ Execute programs from the 2D Toolbar
- History

As icons at the top:

- Refresh tree and view list
- Show/hide directory tree
- Show analysis overview window
- Deletes selected measurement(s)
- Rename selected measurement(s)
- Start CalcTool and use cal file from event folder
- Search and replace channel names into 2D measurements
- Start Analyzer with selected measurement(s)
- Start SpecViewer with selected measurement(s)
- Start formula editor with selected measurement(s)
- Starts program DTS with selected measurement(s)
- Linked programs from the 2D Toolbar

On the left side you´ll find the directory tree, in the middle there are the measurements listed of the selected event and on the right side you can have a look at the SpecSheet of the selected measurement. At the bottom there are buttons to confirm your selection (<**OK**>), start the *2D Analyzer* or Formula program and cancel the selection. Below that there is the overview window.

3.6.1 Analysis overview window

You can select the shown channel by right-mouse-click on the analysis overview window.

3.6.2 Check and change the current measurement formulas – the formula editor

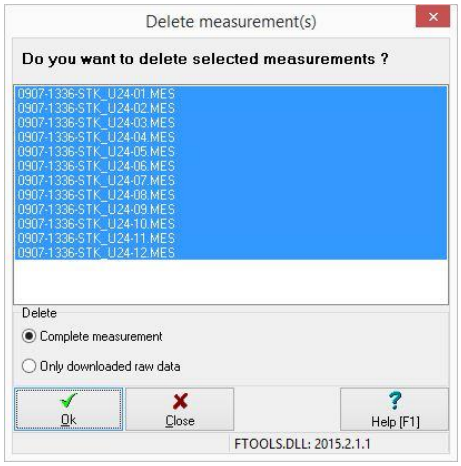
The 2D formula editor is a special part of *WinIt*. With this editor you can comfortably check and change the current formulas of each 2D measurement. The formula editor grabs special files which belong to each 2D measurement.

Within the 2D event explorer you can select the measurements you want to modify and start the formula editor. The editor displays all formula files (of each selected measurement) in the left tree view. You can recognize the several channels (different sensors) of the measurements.

Confirm your changes with <**Apply**>.

3.6.3 Deleting measurements from the current Event

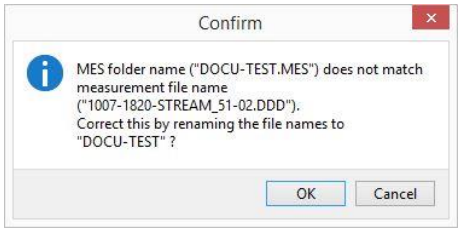
Within the 2D event explorer you can select the measurements you want to delete and click the corresponding button in the toolbar (or right-mouse-click and select “Delete measurement(s)”). You will get the following window:



There you can decide between the options to delete the complete measurement or only the downloaded raw data. Confirm your decision with <**Ok**>.

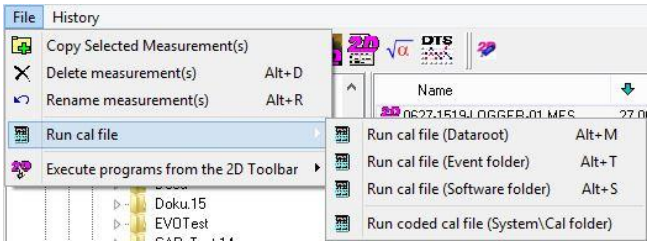
3.6.4 Renaming measurements

It is recommended to rename the measurements with the function “Rename selected measurement(s)” as it renames all files inside the measurement´s folder. If a measurement is renamed within the normal Windows Explorer, the file names are not matching the measurement´s name. The 2D event explorer is able to recognize this mismatch and gives you an info message about it. Confirm this message with <**Ok**> to rename the files.



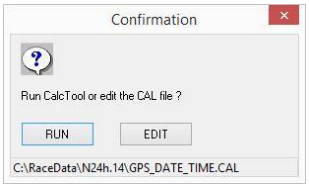
3.6.5 Starting the program CalcTool with selected 2D measurements

If you want to start the program CalcTool via the event explorer, you will get four different options to run cal-files:



1. Start the program CalcTool with selected measurements and using any cal-file (by selection) from the data root.
2. Start the program CalcTool with selected measurements and using any cal-file (by selection) from the current event folder.
3. Start the program CalcTool with selected measurements and using any cal-file (by selection) from the software folder. This folder corresponds with the sub-directory called “Cal” located in your current Race-version.
4. Start the program CalcTool with selected measurements and using any coded cal-file (by selection) from the software´s “Cal” folder.

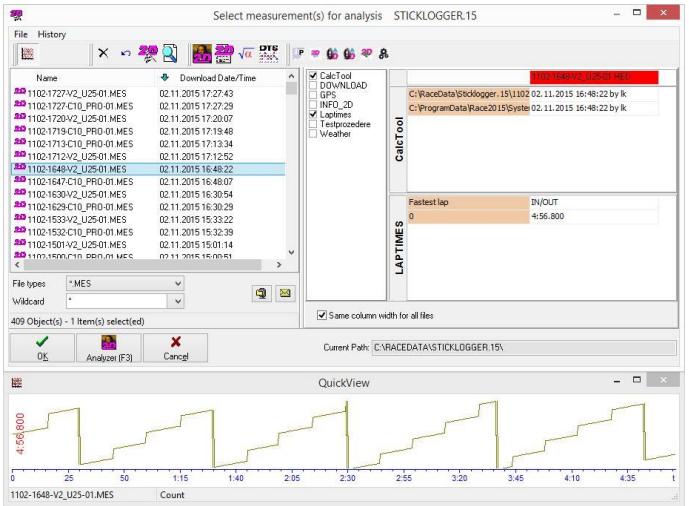
Afterwards you´ll get a list with the different cal-files available. In option 1, 2 and 3 you´ll be asked if you want to edit or run the cal-file. Option 4 directly runs the cal-file, as coded cal-files can´t be modified by the user.



3.7 File explorer

The file explorer gives you an overview of all measurement data of the current event. On the left-hand side you see all measurement directories and on the right-hand side there is the *SpecSheet* of the currently selected measurements. At the bottom is an overview window (QuickView). By clicking on it you can select the shown channel.

To search for specific measurements you can enter a part of its name in the wildcard-field.

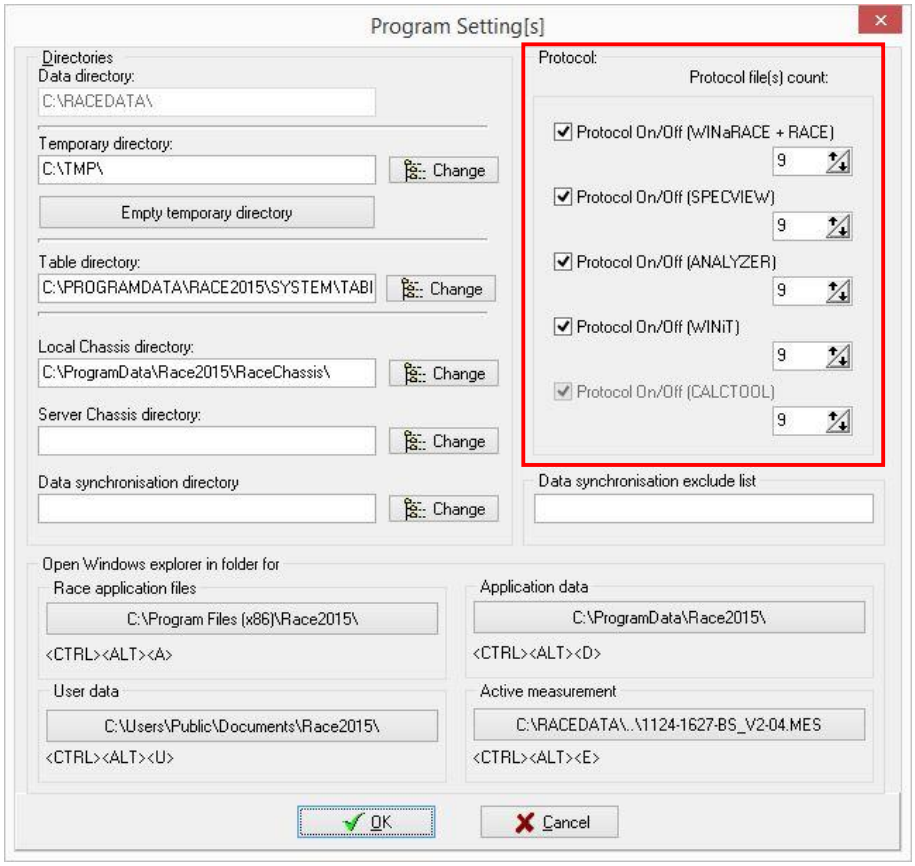


3.8 Access to the protocol function

The protocol function is very important for 2D as manufacturer to detect software problems and fix software errors.

If you activate the protocol function you will get a separate protocol file for each software module you selected. The protocol files are named after the software module. For example if you activate the protocol function for the program Analyzer, the corresponding protocol files are Analyzer.txt, Analyzer1.txt, Analyzer2.txt in your systems protocol folder[5]. These files are in standard text format and the most recent protocol file is the one without a number.

To view or modify the protocol settings select “Settings”, “Folders – Protocol” in *WinARace*.



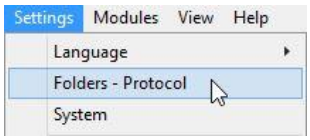
You can define how many protocol files should be saved for each program and turn the function on or off. Confirm your changes with <**Ok**>.

[5] The protocol folder is located within the application data, for example *C:\ProgramData\Race2015\Protocol*

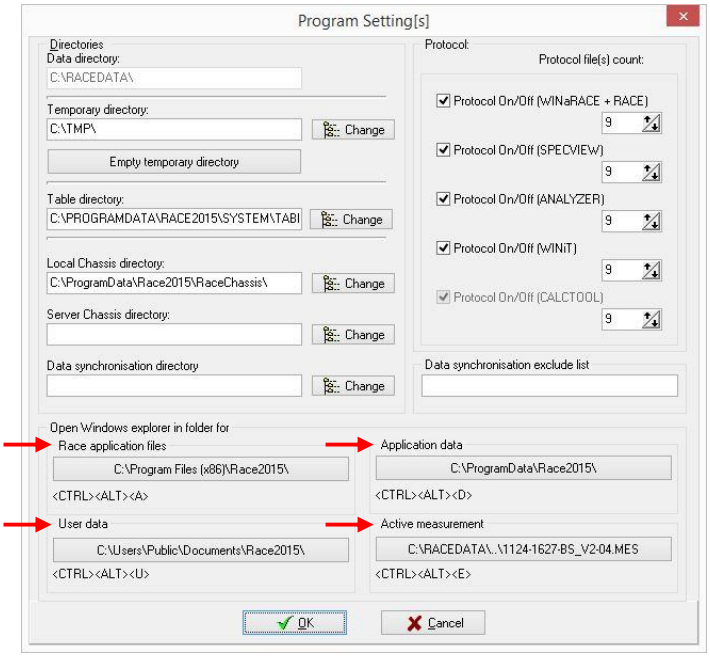
4 New folder structure since 2014

With the new 2014 software version of *WinARace* there are some changes in the folder structure. The new software is split up in different folders (race application files, application data and user data).

For locating these folders start *WinARace* and select *Settings* ⇒ *Folders – Protocol*.



At the bottom of the form you can see different buttons, which will open the corresponding Windows Explorer:



Race application files:

64 bit Windows: C:\Program files (x86)\Race20XX.Y
32 bit Windows: C:\Program files\Race20XX.Y

This folder contains the 2D executable programs and core files like language or help.

Application data:

Windows 7/8/10: C:\ProgramData\Race20XX.Y
Windows XP: C:\Documents and Settings\All Users\Application Data\Race20XX.Y

This folder contains all the internal data files like .ini, license, protocol, chassis, system, circuit.

User data:

Windows 7/8/10: C:\Users\Public\Documents\Race20XX.Y
Windows XP: C:\Documents and Settings\All Users\Documents\Race20XX.Y

This folder contains all the user specific public files like cal-files, math-files, channel settings, templates, etc.

5 Shortcut list

Shortcut	Action
<F1>	Shows context sensitive help module
<F2>	Starts the *WinIt* (Read all devices selected in the options)
<CTRL> + <F2>	Starts the *WinIt* (Read all recording devices)
<Alt> + <F2>	Starts the *WinIt* (Read all dashboards)
<Shift> + <F2>	Starts the *WinIt* (Read all CAN slaves)
<F3>	Starts the *2D Analyzer*
<Alt> + <E>	Starts the *2D Event Explorer* tool
<Alt> + <I>	Starts the program *SpecView*
<Alt> + <Q>	Opens a window to view and modify the active measurement´s comment
<Alt> + <W>	Opens a window to modify the weather info
<Alt> + <X>	Terminates *WinARace*
<Alt> + <F4>	Terminates *WinARace*
<CTRL> + <Alt> + <A>	Opens a windows explorer in folder for Race application files
<CTRL> + <Alt> + <D>	Opens a windows explorer in folder for application data
<CTRL> + <Alt> + <U>	Opens a windows explorer in folder for user data
<CTRL> + <Alt> + <E>	Opens a windows explorer in folder for the active measurement