iID®
software
tools

QuickStartGuide

iID®BEE suite

Preparation

Operation

1. Content

2. Introduction

This document briefly describes the steps necessary to setup iID®BEE suite and gives and overview how to use.

Further information on hardware, drivers and application software is available in separate documents. This document serves as a supplement to the hardware documentation, which nevertheless needs to be read carefully and in which some separate steps for your hardware may be listed.

This highly intelligent software is easy to use and provides features to optimize beekeeping management. Operations such as organizing bees into groups, hives etc., can be implemented with such little effort. Furthermore, beehives and honeycombs can be managed individually. For example, storing data of the last honeycomb weight or location of beehive. Another advantage is the possibilities for customizing data capture settings.

3. Where to find iID®BEE suite

The tool can be found in the main directory on the delivered USB mass storage device (USB-stick), which contains tools and documents and is necessary for later data storage. The tool comes without setup tool and can easily be started directly from USB-stick.

This document describes current version iID®BEE suite v0.9.3

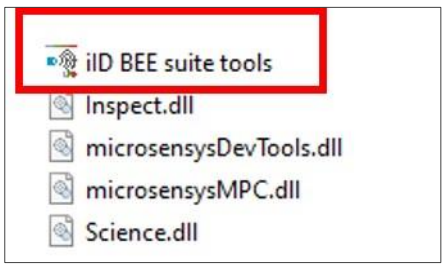
4. Overview Tools and Functions

1. **iID® controller** – configure parameters used by iID® DataCaptureSoftware BEEscience
    a. Setting the working mode of the antenna and controller – DOC or MPC
        i. DOC mode – gives information only about TAG name
        ii. MPC mode – gives information about TAG name and its direction of movement – available only for readers with direction detection
    b. Filter for duplicates (only in DOC mode)
    in which interval can information about each TAG be saved
    c. Maximum data file size
    d. Obtaining cycle – (only in MPC mode)
    each TAG can be found only one time per cycle and only its last activity will be saved
    e. Cloud settings – in development
2. **BEE Collections** – to assign component to collections for a better evaluation (see Chapter 5)
3. **iID® Reader** – only for developers

5. BEE Collections

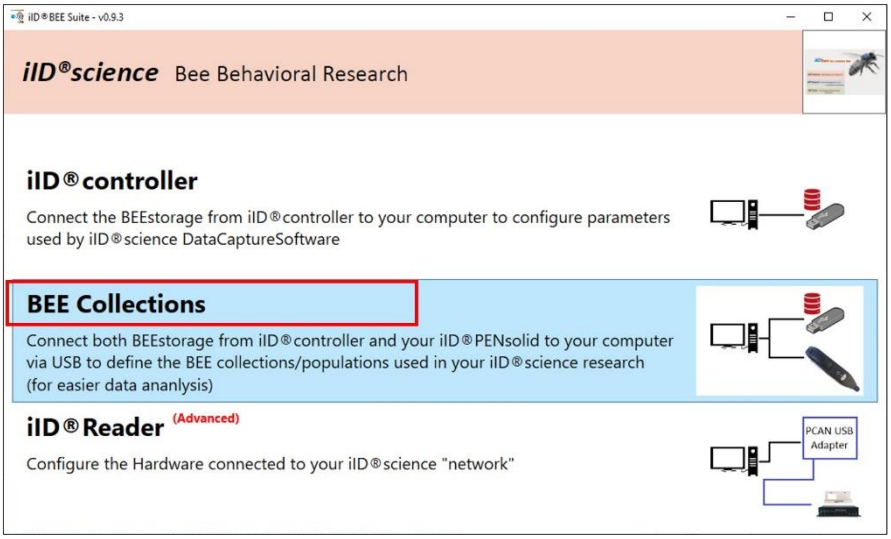
Following chapter describes operation of iID®BEE suite in order to assign individual transponder and sensors IDs to collections for better evaluation.

1. Connect your iID®PENsolid via USB to your PC
2. Plug in the USB stick which we delivered with the iID®science system
3. Start the iID®BEE suite



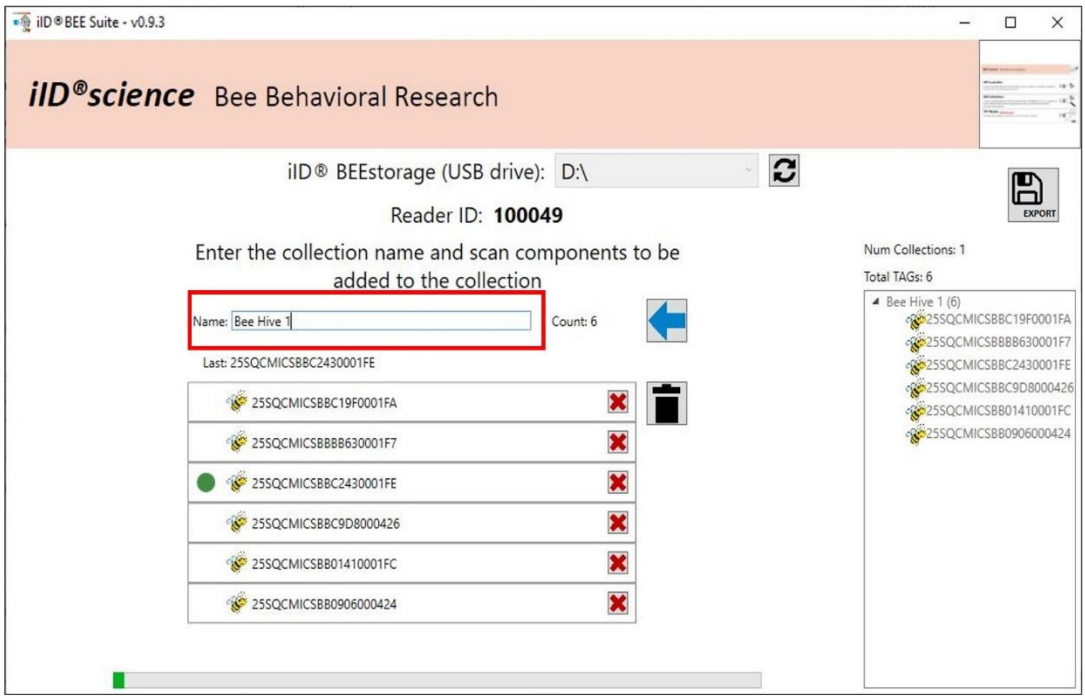
4. **[iID®science]:**The iID®science main view will be displayed.

5. **[BEE Collections]:** BEE Collections mode is useful to arrange groups of hives and the familiar TAGs.

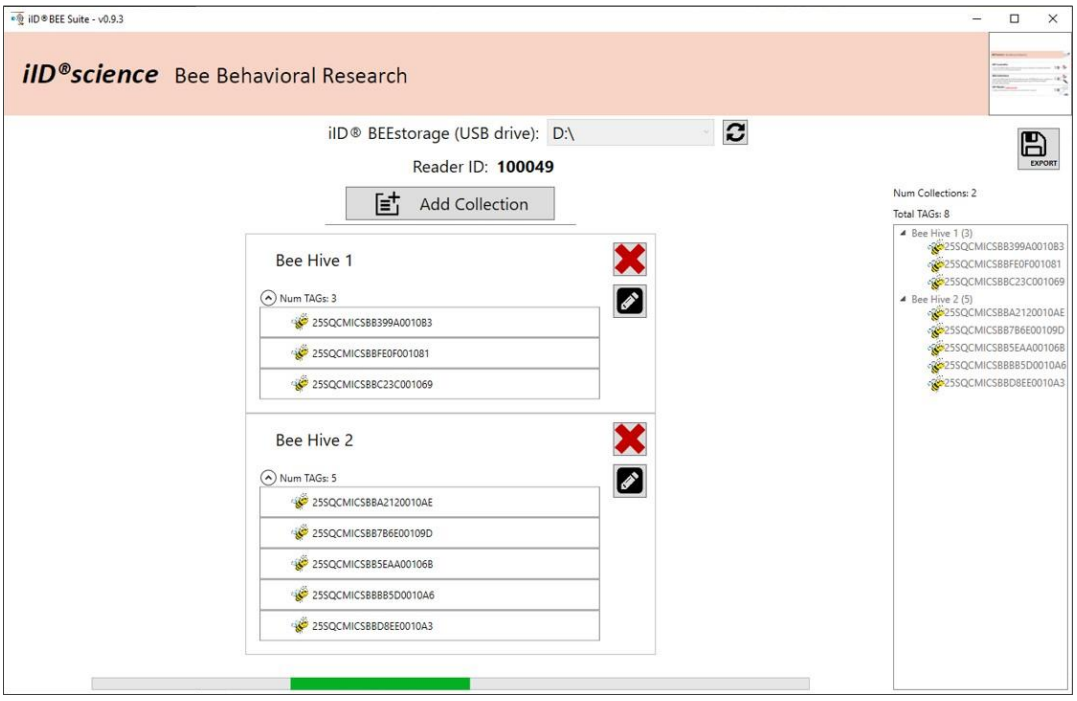


6. **[Add Collection]**: To create a collection

7. Give a collection name in the field next to Name. (For the defining name, no extra step is needed. Just write the name in the box and no need to press "**Enter**". Do not click the **blue arrow**)

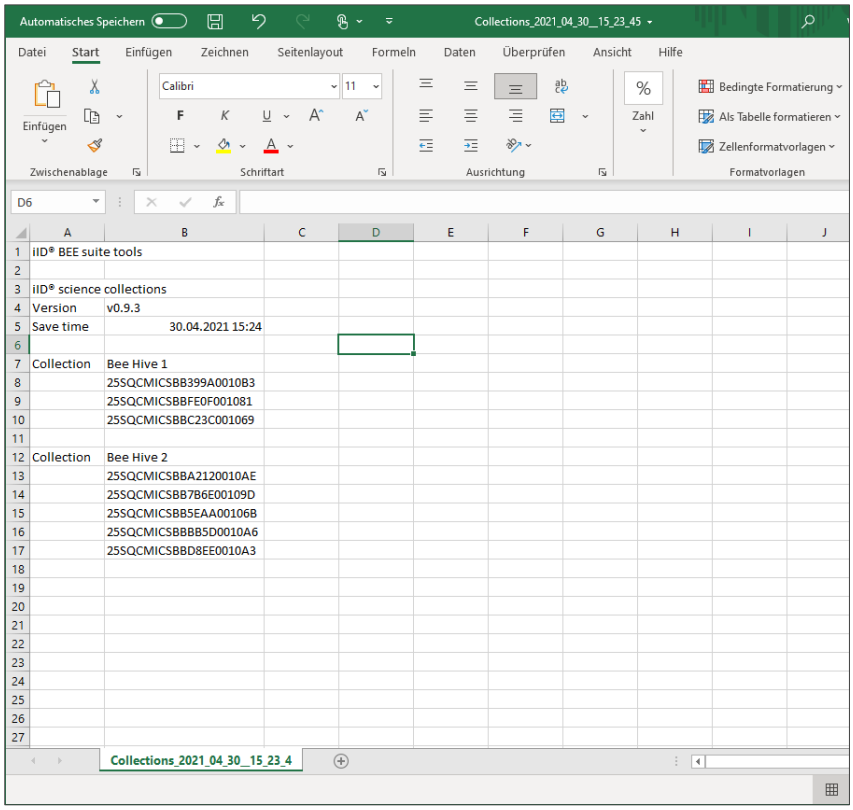


8. Scan transponders one by one using your iID®PENsolid to be added to a collection – transponder IDs are displayed in the list box below
9. Once all transponders for current collection are scanned
    a. Close current edit view clicking the blue arrow 
10. The collection contents should appear in the main view as on the right side



11. To add more collections/groups, click on Add Collection and repeat steps 6 to 9
12. To **EXPORT** collections as “CSV”- file, please choose the button **[EXPORT]** and choose a folder

The created file has the follow format:



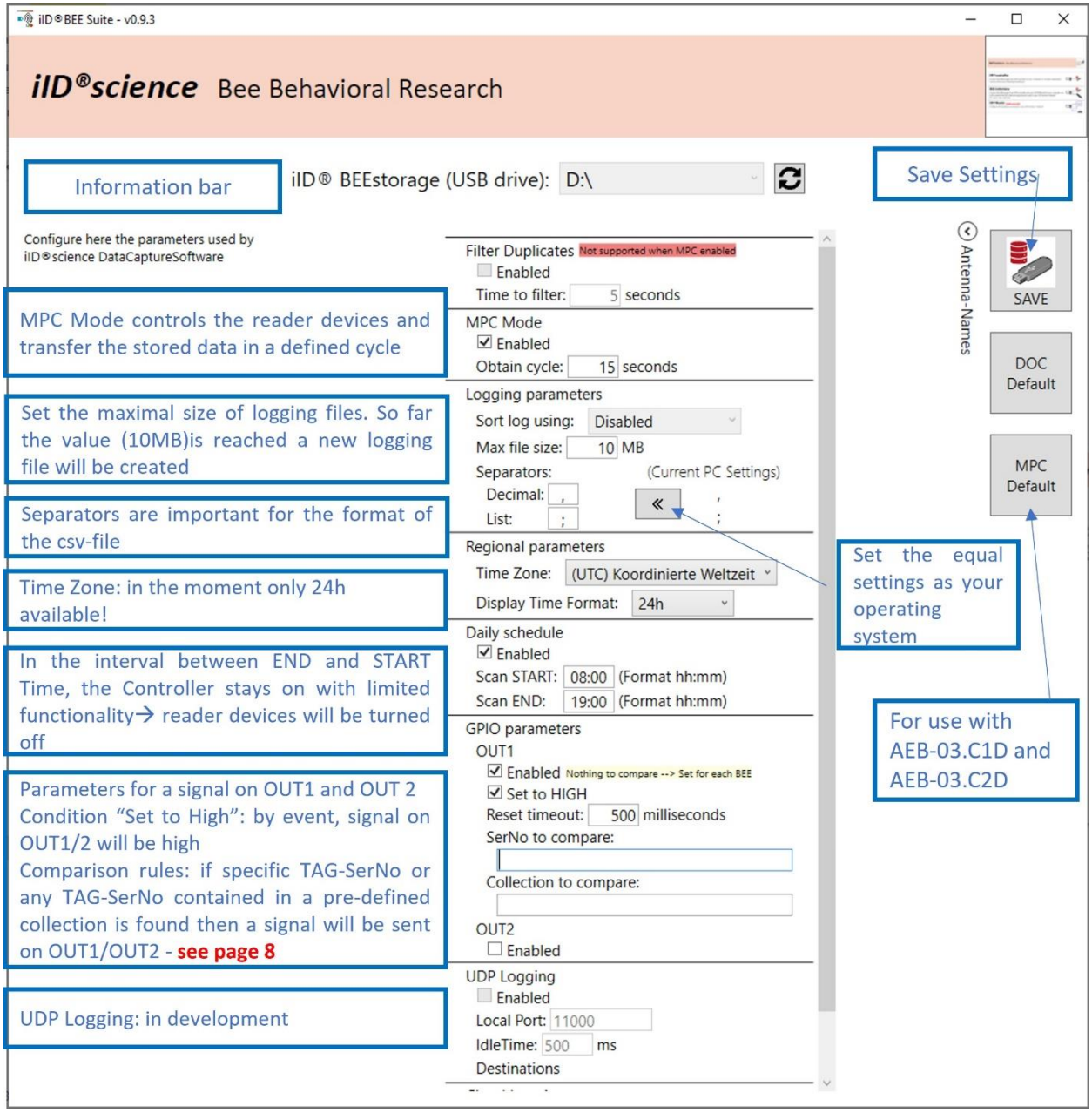
	A	B	C	D	E	F	G	H	I	J
1	iID® BEE suite tools									
2										
3	iID® science collections									
4	Version	v0.9.3								
5	Save time	30.04.2021 15:24								
6										
7	Collection	Bee Hive 1								
8		25SQCMICSBB399A0010B3								
9		25SQCMICSBBFE0F001081								
10		25SQCMICSBBC23C001069								
11										
12	Collection	Bee Hive 2								
13		25SQCMICSBBA2120010AE								
14		25SQCMICSBB7B6E00109D								
15		25SQCMICSBB5EAA00106B								
16		25SQCMICSBBBB5D0010A6								
17		25SQCMICSBBD8EE0010A3								
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										

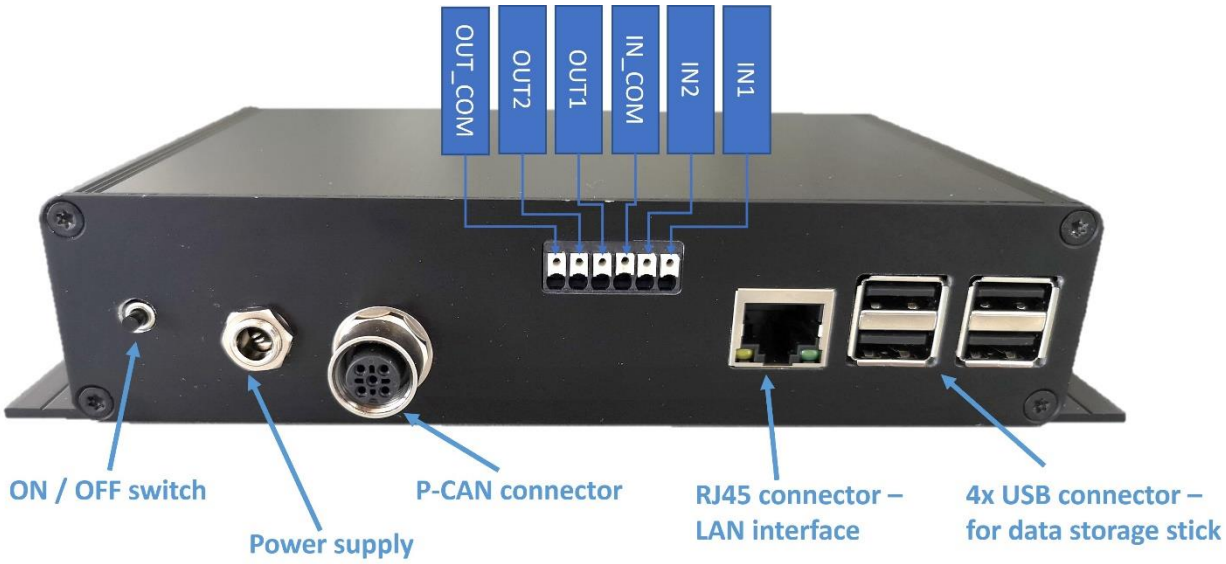
13. To finish the process, click in the top right corner on the small squared figure representing the iID®science main view
14. Close iID®BEE suite
15. Pull out the USB-stick from the PC and plug it in the Controller. Collection information will be saved by the controller together with collected IDs after next start..

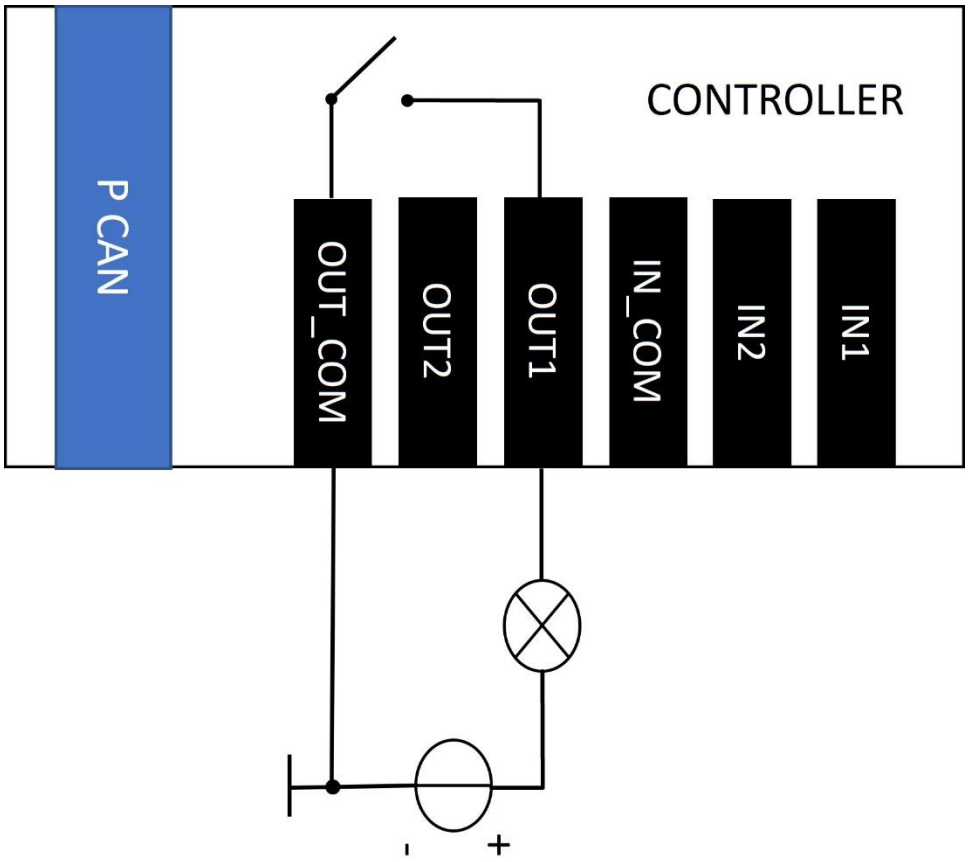
6. iID®controller

This section allows configuration of individual settings of the DataCapture Software and iID®BEEcontroller Please note, that changes of parameters deeply affect system scan behavior and data storage.

Following overview describes different parameters DataCapture Software and iID®BEEcontroller and their functionality.

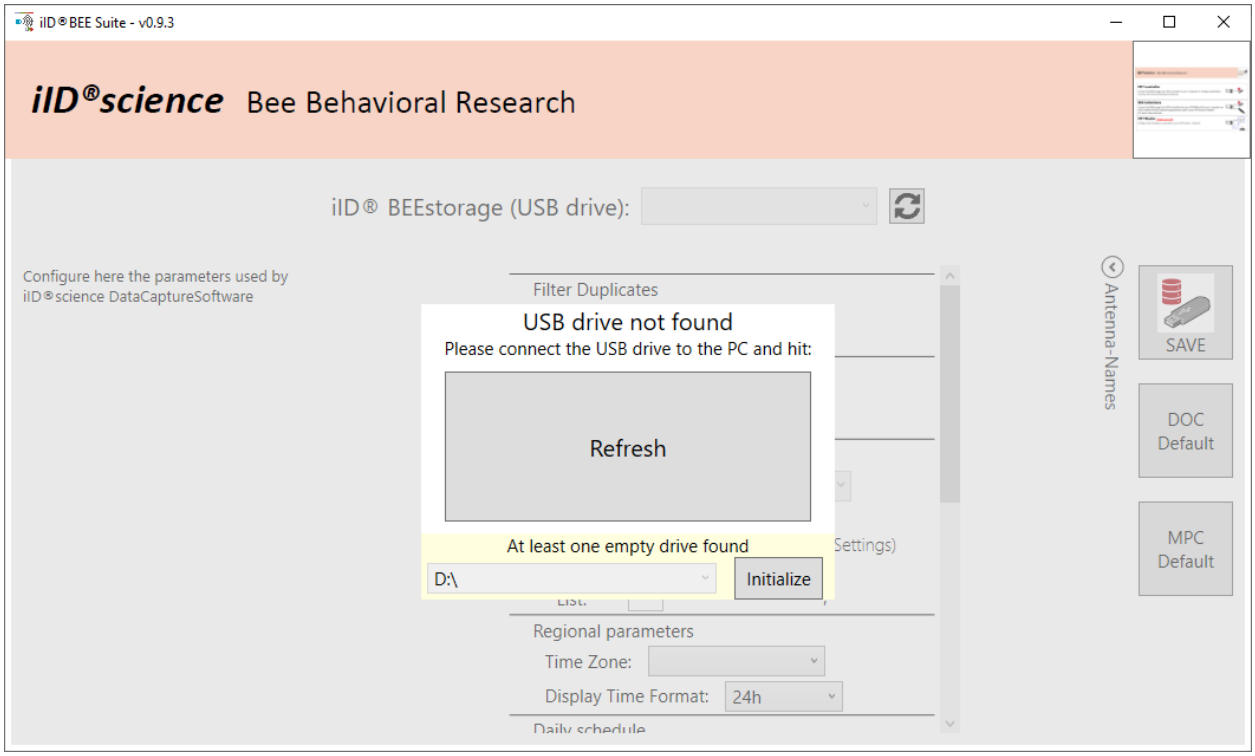






7. How to initialize new USB storage stick

1. connect an empty USB storage stick
2. choose “initialize” in the options window



8. Data transfer and evaluation

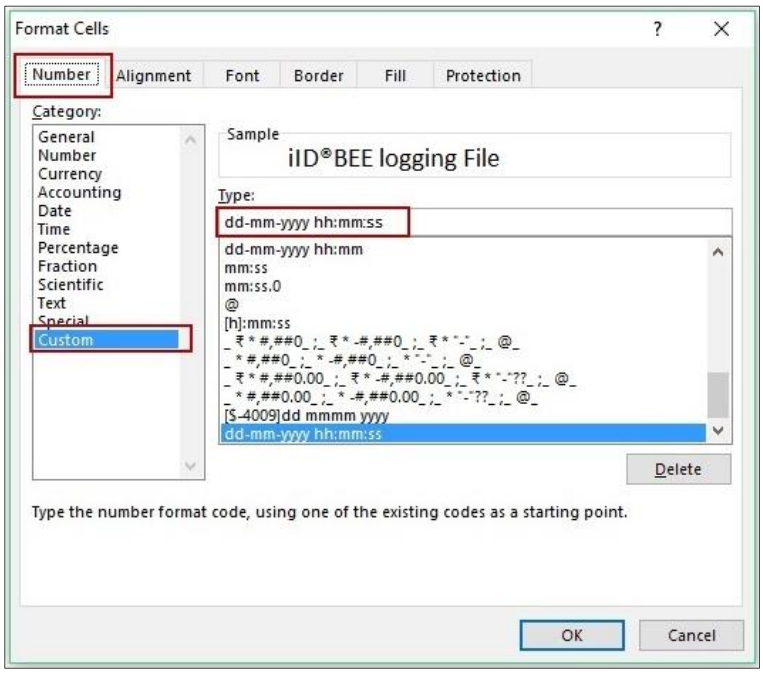
After iID controller operation collected data can be transferred back to your PC. Data will now be structured for better evaluation. The next steps will describe how to transfer and evaluate saved data from the USB- stick.

1. Pull out the USB-stick form the iID®BEEcontroller
2. Connect the USB-stick to a PC and open it:
   - saved data is in the folder: iID®DataCaptureSoftware→Logging→CB30Dxx→001,002,003… etc.
   New folder (001,002 etc.) with consecutive number will be created each time the system starts.

3. Evaluate stored captures - ***.csv files**

   Latest logging file is stored as *.csv_InUse. To open the file is needed to change its name form from *.csv_InUse to *.csv.
   Example: log_2019_12_12__13_49_46.csv_InUse → log_2019_12_12__13_49_46.csv

4. Open file **with Microsoft Excel:**
   a. Set the column width so that all texts are completely readable
   b. Change the Formatting of data in columns "Timestamp UTC", “FirstTimeFound” and “LastTimeFound” according to this window below to display the time in a correct format



Description of the excel sheet:

	A	B	C	D	E	F	G	H	I	J	K	L
1	File Creation Time UTC	12.12.2019 13:49:46										
2	SW Name	iID®DataCaptureSoftware										
3	SW Version	v01.04										
4	SW BuildDate	24.10.2019										
5	SW StartTime	12.12.2019 13:49:46										
6	Lib Version	01.05.2011										
7	Company	Micro-Sensys GmbH										
8	OS Version	10.0.17763.107										
9												
10												
11	Settings											
12		Scan mode	MPC									
13			DataGetDelay_Seconds		5							
14												
15	Found Hardware											
16		Address	ReaderID	HW-Info	FW-Info	Num-Antennas						
17		0x01	25SQCMICSCB30D40									
18		0x10	200038	D0.21	98.05.11	2						
19		0x11	200038	D0.21	98.05.11	2						
20		0x12	200038	D0.21	98.05.11	2						
21		0x13	200038	D0.21	98.05.11	2						
22												
23	Timestamp UTC	HexAddress	ReaderID	UID	Collection	DataType	FirstTimeFound	LastTimeFound	NumFound	Direction	Ant1	Ant2
24	12.12.2019 13:49:46	10	200038	25SQCMICSBB139500042C	Bee Hive 3	MPC	12.12.2019 13:49:45	12.12.2019 13:49:45	14	Arriving	x	x
25	12.12.2019 13:49:46	10	200038	25SQCMICSBBBB630001F7	Bee Hive 1	MPC	12.12.2019 13:49:46	12.12.2019 13:49:46	14	Arriving	x	x
26	12.12.2019 13:50:02	12	200038	25SQCMICSBBC2430001FE	Bee Hive 1	MPC	12.12.2019 13:49:47	12.12.2019 13:49:51	9	Departing	x	x
27	12.12.2019 13:50:02	11	200038	25SQCMICSBBD09700042E	Bee Hive 2	MPC	12.12.2019 13:49:47	12.12.2019 13:50:01	9	Arriving	x	x
28	12.12.2019 13:50:02	11	200038	25SQCMICSBB01410001FC	Bee Hive 3	MPC	12.12.2019 13:49:48	12.12.2019 13:50:01	10	Unknown	x	x
29	12.12.2019 13:50:02	13	200038	25SQCMICSBB0906000424	Bee Hive 2	MPC	12.12.2019 13:49:48	12.12.2019 13:49:59	12	Departing	x	x
30	12.12.2019 13:50:02	10	200038	25SQCMICSBBC19F0001FA	Bee Hive 1	MPC	12.12.2019 13:49:50	12.12.2019 13:50:00	14	Unknown	x	x
31	12.12.2019 13:50:17	13	200038	25SQCMICSBBC9D8000426	Bee Hive 1	DPC	12.12.2019 13:50:02	12.12.2019 13:50:16	7	Departing	x	x

Scanning cycle in seconds
It shows to wich collection belong the transponder
Antenna adresses
Transponder founded for last time
Transponder arrive or depart the hive
Transponder founded for first time
Capture Timestamp
Transponder Id

9. Problem handling

In case of problems to connect iID®PENsolid with iID®BEE suite and the function “Collection” is not working. Please read carefully and perform the steps in chapter Connection Tool and DEMOsoft.

10. iID®CONNECTIONtool and iID®DEMOsoft

The following procedure has to be performed to install hardware if you are using the equipment first time. Separate installation of USB drivers may be necessary.

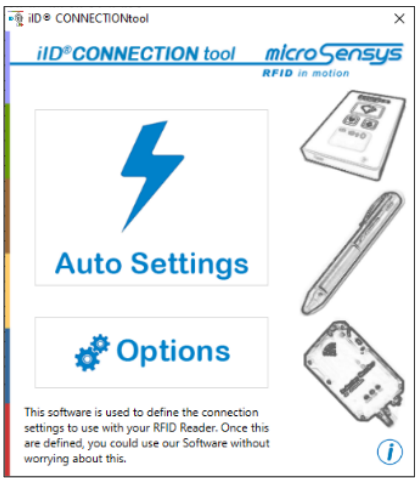
1. Install iID®CONNECTIONtool from the USB-Stick or download it from:
   https://www.microsensys.de/downloads/CDContent/Install/iID%c2%ae%20reader%20connection%20tool.zip

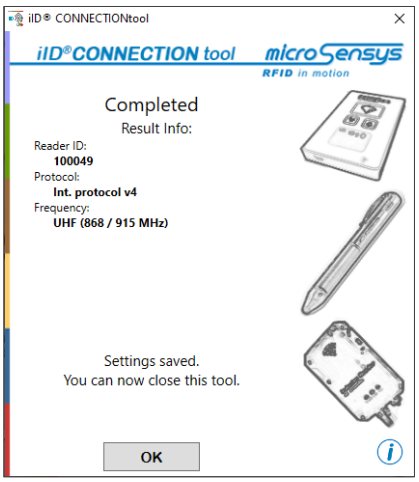
2. Install iID®DEMOsoft from the USB-Stick or download it from:
   https://www.microsensys.de/downloads/CDContent/Install/iID%c2%ae%20DEMOsoft.zip

3. After completing the both installations connect **PENsolid UHF via USB cable with the PC**

4. Start the shortcut from iID®CONNECTIONtool

5. Click **Auto Settings** → reader device will we recognised→ click **OK** and close the application

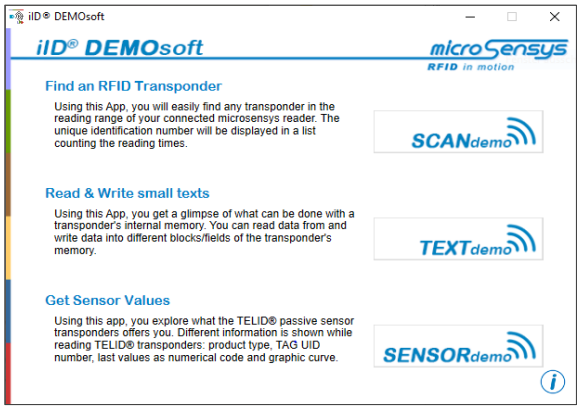


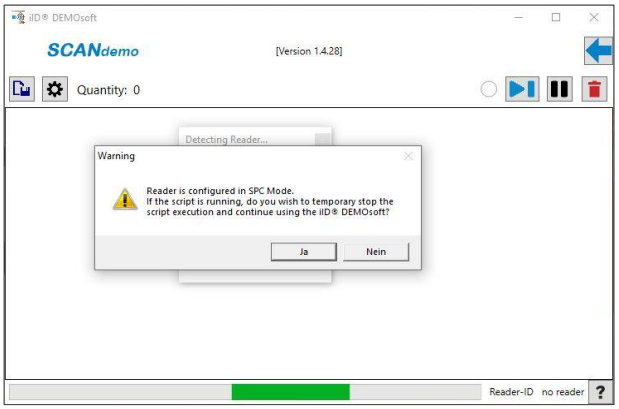


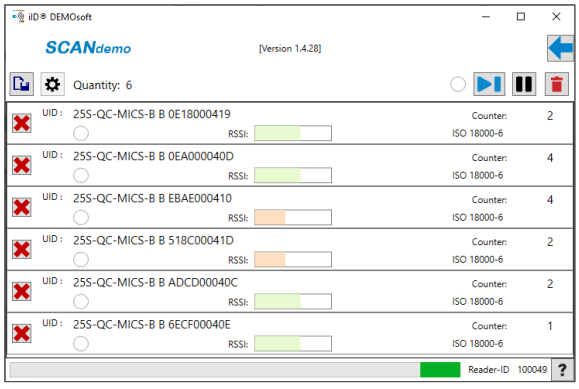
6. In case Auto Settings is not working:
   - choose **Options** and set the settings like in the next picture→save the settings

7. Start iID®DEMOsoft

8. Choose **SCANdemo**→ click **[YES/Ja]** (to stop the SPC Mode on PENsolid)→ scan the BEE-TAGS one by one







9. Close iID® DEMOsoft

Please note, that this document serves as a supplement to the hardware documentation, which nevertheless needs to be read carefully and in which some separate steps for your hardware may be listed.

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