What is new in BioChek II Software version 2018

Elisa Test – Create a plate layout

- Automatic registration of Customers and flocks/herds: Select Customers from a drop-down list
- Add Last Vaccination
- Quick setup create plate layouts in the spreadsheet below the plate layout grid
- Import plate layouts from LIMS (.xml format)
- Save Plate Layouts: Save controls in the layout and add plate ID
- Show Labcode/House/Bleeding date in well of the plate layout
- Add comments to your plate layout
- Maximum number of samples per flock/herd increased to 400

Reporting

- New: PCR combined report
- Improved Print Plate Layout

Customers

- Automatic registration of Customers and flocks/herds
- List of countries updates

Configurations

- Type of animal: NEW Slower growing broiler (SGB)
- Vaccination date prediction parameters: NEW -Slower growing broiler (half-life 4 days)
- Flock/Herd codes: make flock/herd codes mandatory
- Assay: NEW NDV-F protein ELISA
- Report settings: Trend Show mean titers on Bars
- Readers: NEW Thermo Fischer Multiskan FC, Dynex DS2

Data Management

- Custom Export: improved export to LIMS (CSV or TXT file)
- Import BioChek 2010 database into BioChek II Software.
- Automatic export to an online database
- Automatic backup service of your server database

PCR-Test

New for this version of the BioChek II software is the addition of a PCR module that will guide the complete PCR process from creating a plate lay-out to the generation of an easy to read report.

- Digital creation of plate lay-outs
- Automatic calculation of reagent volumes (compensated for dead volume)
- Raw data from the PCR cycler* can be directly imported into the BioChek software
- BioChek II software checks the controls and validates the plate if controls are in range.

If the assay is valid the BioChek II software will check for inhibition in the samples using the IC.

• The BioChek II software will generate an individual report for all the assays on the plate.

*supported cyclers: ABI 7500 series, ABI Quantstudio series, BioRad CFX, Agilent Mx3005p, Rotogene, ARIA MX

New features BioChek II Software 2018

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ELISA

Automatic Registration Customer in plate layout – drop down list

This new version of BioChek II Software allows users to register customers and flock/herds when creating plate layouts. Advantage of this feature is that:

- 1. Easier to test as Customers are presented in a drop-down menu when creating a plate layout
- 2. Reduced risks of typo's when filling flock/herd codes.
- 3. Use of BioChek app only available for data of register customers and flocks/herds

Setup Automatic Registration Customers and flocks/herds:

- 1. Always save customers = easiest way to automatically register customers. No popups when registering new customers or houses. If adjustments are made to the previously registered customer or flock/herd it will simply overwrite.
- 2. Ask to save customers = for each new entry of a customer or flock/herd the software will ask if registration is required.
- 3. Never save customers = in case automatic registration is not suitable for your system. <u>Remember</u> that the BioChek app can only be used for data of registered customers.



Use Automatic Registration Customers and flocks/herds

- 1. Go to **Test > ELISA-Test** and click **Create Plate layout**.
- 2. Start typing the Customer-name. The software will automatically search for customers with that exact letter combination and show it in a drop-down menu

Example Customer- name is **Blueberry Hill** and Company: **Chicken Producer** and Blueberry Hill has multiple houses.

Plate Coding		×
Fill Codes		
	Clear Code Fields	Fill Location
General Extras		Starting in: A 💌 2 💌
Lab code:	11/09/2017 115406	Number of samples: 23 v (88 available cups)
Submission date:	11/09/2017 💌	Fill Style
Sample type:	• •	O Horizontal O Vertical
Vaccination program	• +	
Last Vaccination:	Date: 🔽	
Bleeding date	11/09/2017 🗨	
Customer-Name	BlueBerry Hill	
Company	Chicken Producer	
House number	1	
Туре	Broiler Breeder	
Birth date	01/05/2017 💌	
Age	19 Week(s) -	
Code	123456789	
Reason	Monitoring	
		FILL FILL and CLEAR
		Finish

- 1. Fill all relevant flock codes and click Fill.
 - a. Automatic Save:
 - i. The Customer and flock/herd will automatically get registered and one can continue creating the plate layout.
 - b. Ask to save customer:
 - i. The Software will ask if the Customer should get registered or not.



ii. Click **YES** and the Dialog with customer information will appear allowing the user to add additional customer information. Click on Flock/Herd Definitions to check and add extra information about the flock/herd.

General Flock/H	lerd Definitions			click Flock/Her	d Definitions to
Farm Manag	er:			manage the ani	mals per house
Customer-	BlueBerry Hi	11		·	
Name(~): Middle par	ne:	First par	me.		
		Makilar			
Telephone		Mobile:			
E-Mail:		1	fill in the addi	tional Customer	info
Farm Addre	55:				
Company:	Chicken Pro	ducer L			
Street:				Num	iber:
Zip:		City:			
County:		Country:	United Kingdom		•
Customer		Theorem in the			
Customer	r				
General Flock/H	lerd Definitions				
House number	Birth date	Туре	Code	Age	New New
1	31/07/2017	Broiler Breeder	12345678	39 42 Day(s)	Edit
2	28/08/2017	Broiler Breeder	98765432	21 14 Day(s)	
3	01/05/2017	Broiler Breeder	65473829	10 19 Week(s)	× Delete
			-		
		select the in	house and a fo in required	dd/adjust J	V History
		select the	house and a fo in required	dd/adjust j	Mistory
		select the	house and a lfo in required	dd/adjust	History
		select the in	house and a fo in required	dd/adjust	History
		select the in	house and a fo in required Ready? Cli	dd/adjust	₩ History
		select the in	house and a fo in required Ready? Cli	dd/adjust	Se History

• When ready, click Save and Close

2. The next time the same flock gets tested the technician can start typing the name of the Customer in the Customer-name field and all available registrations with that letter combination will be presented in the drop-down menu:

11/09/2017 💌	
blue	•
BlueBerry Hill (Chicken Producer)	
BlueBerry Hill (Chicken Producer) -> House: 1	

- a. Now there are several options:
 - i. Select the customer + house (e.g. BlueBerry Hill (Chicken Producer) -> House: 1)

	Dute.	• • • •	
11/09/2017			
blue		•	
BlueBerry Hill (Chicken Producer)			
BlueBerry Hill (Chicken Producer) -> House: 1			
	· ·		

ii. Or, if the customer is already registered but you will test a new house, select the customer (**BlueBerry Hill (Chicken Producer)**) and add the rest of the required information. This new house will be added to this customer.

	Date.		
11/09/2017			
blue		•	
BlueBerry Hill (Chicken Producer)			
BlueBerry Hill (Chicken Producer) -> House: 1			

iii. Or, if it is a new customer, just continue typing and move to the next field when ready using **TAB** and fill in the rest of the customer's information. When clicking **Fill** the customer will get registered and it will be in the drop-down list the next time.

Manage Customers and flocks/herds

To manage the customers and flock/herds (add, edit or delete) go to **Customers** and Search the customer.

Biochek 2017.0.11.0					Management and			
	🖇 Elisa-Test IBO 📑 Software S	Settings 🔮 Customers						
82	🛃 Customers							
Customers	Recently added customers							
	Customer-Name	Company	Street	House numb	Zip City	Country	Added On	Add
	BueGerry Hill	Chicken Producer				United Kingdom	11/06/2017	
	Search Customers:	1		Search for	the Customer			
	Search on Customer-Name	• for Bue	-	Search ion	the customer			Search Search
	Drag a column header here	to group by that column.					Select the customer and click Edit	
	Customer-Name		♥ Street	∀ House nu	Zip 🔻 City		(or double click on the customer	Edit
	The second se							

eneral Flock/Herd	Definitions			click Flock/Herd Definitions to
Farm Manager:				manage the animals per house
Customer- Name(*):	BlueBerry Hill			
Middle name:		First na	ame:	
Telephone:		Mobile		
E-Mail:			£11	
Farm Address:			TIII	the additional Customer into
Company:	Chicken Producer			

Click Edit (or double click on the Customer) and a dialog with customer details is presented.

Click on the **Define Flocks/Herds tab** to manage the flocks/herds per house (double click on the house or click **Edit**).

Customer		100 M			
🛃 Custome	r				
General Flock/	Herd Definitions				
House number	Birth date	Туре	Code	Age	New New
	31/07/2017	Broiler Breeder		42 Day(s)	
2	28/08/2017	Broiler Breeder	987654321	14 Day(s)	
3	01/05/2017	Broiler Breeder	654738290	19 Week(s)	× Delete
		create a new delete an e	v house, edi xisting hou	t or se	Y History
	41		generat	e Sample Sul	omission Form
view	the moni assigend	per house	(per hou	se or for all h	ouses at once)
3	Preview	Monitoring plan 🙀 Pr	eview/Print Sample Sut	om. form 🏻 🍇 Previe	ew/Print Sample Subm. forms - All
Delete Custome	9 7			Save Sa	ve and Close Cancel

From here also the **Monitoring Programs** can be **printed** as well as **Sample Submission Forms**.

Quick Setup – create plate layouts in BioChek's Quick setup – spreadsheet

The 2018 version of BioChek II software allows users to setup a plate layout using the spreadsheet below the plate layout grid.

1. Go to **Test > Elisa-Test** and put the indicator one of the cells of the first row.

Siochek 2017.0.11.0																								- 0 <mark>- ×</mark>	
Test	5	Ellen Test																		Laboration of the second					
Elica Tast	-	clisa-res	st																	Lot hum	iber:	Selec	Hosay		
1	Pl	ite1					_															12	_	Plate	ļ
dPCR-Test		· · · ·		2	_	3	-			•	1	6	1	1	8	1.00	3		- 1			12	-11	Sample Queue	
	A															1									
		Not Read	_	Not Read	_	Not Read	_	Not Read		Not Read	Not Re	sad	Not Read	Not Read		Not Read		Not Read		Not Read		Not Read	- 11	layout	
																								Clear plate	
	B					_																			
		Not Head	_	Not Head	_	Not Head	_	Not Head		Not Head	Not He	sad	Not Head	Not Head		Not Head		Not Head	- ť	Not Head		Not Head	- 11	Load plate layout	
	c															1								Save plate	
		Not Read		Not Read	_	Not Read		Not Read		Not Read	Not Re	sad	Not Read	Not Read		Not Read		Not Read		Not Read		Not Read		Dist slate	
																1								layout	
	1	Not David		Met Based		Not David		Not Dand		Not David	Med De		Net Read	Not David		Not Pased		Not Read		Not Dand		Net David	-11	Import plate	
		INVE THEORY		TRA HOOU	_	1901 11000	_	THUL I YOOU		TRA HOOV	160.110	100	THUL TID DU	THUL THEOD		100.1000		TVA HOOD	T	1000		TRUCT YOOU		Results	í
	E	1														1								Bead plate	
		Not Read		Not Read	_	Not Read	_	Not Read		Not Read	Not Re	sad	Not Read	Not Read		Not Read		Not Read	-	Not Read		Not Read	-11		
																1								Save results	
		Not Read		Not Read	_	Not Read	_	Not Read		Not Read	Not Re	ad	Not Read	Not Read		Not Read		Not Read	-	Not Read		Not Read	- 11	Edit Results	
																								Quaratined	
	G															1								Nesuits	
		Not Read		Not Read	_	Not Read	_	Not Read		Not Read	Not Re	ad	Not Read	Not Read		Not Read		Not Read	-	Not Read		Not Read	- 11		
	н															1									
S Reception	1	Not Read		Not Read	_	Not Read	_	Not Read		Not Read	Not Re	ad	Not Read	Not Read		Not Read		Not Read		Not Read		Not Read	- 11		
No. Test	0	ick Setup Plan	te Summer			-					-				-					-					
- Test	W	lell Count	t Plate	Wells Lab	Code	Sub	mitted	Bled	Custo	mer-Name		Company		House number	r Type		Vaccination	Birth date	Age	D/W	Code	Reason			
Reporting																							- 1		
Monitoring																									
Customers																									
Configuration																									
Support	1		_	_	_		_	_	_			_			_	_	_		_		_				
																iêi ca	BIOCHEK INB	ochek sdf 🥺	BioCh	ek BV		ab Administrator	test i	Reader / Inonel	f

- 2. The moment you start typing the software will first ask to Select the Assay. After the assay is selected the technician can start filling all flock information.
- 3. You can navigate through the columns and rows in a similar way as it is done in Excel. Some key actions:

TAB or right arrow	Move right
Left arrow	Move left
Upward arrow	Move upwards (previous flock)
ENTER or downward arrow	Move to next row (next flock)
CTRL+C	Copy value (1 well at the time)
CTRL+V	Paste value (1 well at the time)
CTRL+X	Cut value (1 well at the time)
SHIFT+ENTER	Duplicate whole row

Choose the starting well of the flock by specifying the location of the well in the first column of the spreadsheet named "Well" (letter for the row followed by a number for the column). To use the first available well the field can be left empty. The software will automatically fill the well with an asterisk (*) and choose the first available well on the plate layout.

Quick Set	tup Plate	Summary				
Well	Count	Plate	Wells	LabCode	Submitted	Bled
D4	24	1	G1:F4	11/09/2017 161126	11/09/2017	11/09/2017
• 🔻	-24	1	G4·E7	11/09/2017 161126	11/09/2017	11/09/2017
			Decie flock emp	de what the s will be. (letter oty to let the s	tarting w +numbe software	ell of the or or leave decide)

NOTE: one can only use the Quick Setup during the initial create plate layout step. After clicking **Saving plate layout**, or **Saving results** or when **Editing Results**, the user can only use the classical to make modifications to the plate layout.

Add Last Vaccination when creating the plate layout

In the previous versions of BioChek Software it was already possible to add complete vaccination programs. Now it is also possible to add single (Last) vaccinations while creating the plate layout.

Setup of Last Vaccination

To add vaccines to the BioChek II Software:

- 1. Create Vaccines in BioChek II software by either:
 - Downloading the predefined vaccines via Configurations > Software Settings > Software Updates > Update Vaccines.
 - b. Manually creating new vaccines (see section Add Vaccine in BioChek II Software manual)
- 2. Activate the flock code Last Vaccination in Configuration > Software Settings > Flock/Herd Codes



Use Last Vaccination when creating the plate layout

- 1. Go to Test > Elisa-Test (or qPCR-Test) and click Create Plate Layout.
- 2. Move the mouse over the field **Last Vaccinations** and a drop-down menu appears with all available vaccines for the selected disease.

- 3. Select the Vaccines of interest.
- 4. Optional: enter the vaccination date or age

a. To switch from date to age and vice versa, click on the button.

Exuas		
Lab code:	11/09/2017 224216	
Submission date:	11/09/2017 🗨	
Sample type:		
Vaccination program		
Last Vaccination:	H120	Date: 28/08/2017 💌 .
Bleeding date	11/09/2017 💌	
Customer-Name	BlueBerry Hill	
Company	Chicken Producer	
House number	1	
Туре	Broiler Breeder	
Birth date	31/07/2017 🗨	
Age	42 Day(s) 🔻	
Code	123456789	
Baasan	monitoring	

- 5. Fill in the rest of the flock/herd information and click Fill.
- 6. When the Combined report is generated, the code Last Vaccination will appear in the list of flock codes



Import Plate layout into BioChek II Software from LIMS (.XML).

Setup Import plate layout

With BioChek II Software version 2018 it is possible to import plate layouts created in laboratory information management systems (LIMS).

The plate layout should be presented as .XML file, which can be created by designing an export tool in LIMS. This .XML file should follow a certain structure, described in the .XSD file here: https://server.biochekonline.com/Tools/examples/import.xsd.

An example of a valid .XML file can be found here: https://server.biochekonline.com/Tools/examples/example.xml

Verify the correctness of the export tool by uploading the .XML file here: <u>https://server.biochekonline.com/Tools/ImportValidator.aspx</u>

Plate codes	Description	Mandatory	criteria
Description	Name of plate layout	Yes	Max 50 char
Assay	Abbreviation from Assays list in BCII	Yes	From list
Fill direction	Fill direction on the plate (HORIZONTAL or	Yes	HORIZONTAL
	VERTICAL)		or VERTICAL
Controls	NEGATIVE and POSITIVE (specify location on the	Yes	
	plate, per well)		
Refcontrols	Ref controls used must match the abbreviation of	NO	From list
	ref control list in BCII (per assay) (specify location		
	on the plate, per well)		
Flockscodes	Description	Mandatory	criteria
Labcode	Any code	Yes	Max 50 char
CustomerID	CODE created in LIMS	Yes	Max 50 char
Vaccine	Name from list Vaccine in the BioChek II Software	NO	Max 50 char
Vaccination program	Use CODE of the vaccination program from list	No	Max 50 char
	BCII software		
Sample type	Use CODE of the vaccination program from list	No	Max 50 char
	BCII software		
Submission date	DD/MM/YYYY or MM/DD/YYYY (see Windows	No	
	Settings)		
Bleeding date	DD/MM/YYYY or MM/DD/YYYY (see Windows	No	
(Flockcode 1)	Settings)		
Customer name	DD/MM/YYYY or MM/DD/YYYY (see Windows	Yes	Max 50 char
(Flockcode 2)	Settings)		
TypeofChicken	Use CODE of Type of animal from list BCII software		From list
Breed	Name from Breed list in BioChek II Software		From list
Other codes	See Software Settings > Flock/Herdcode to check	No	Max 50 char
	which code is use in which field		

The information required to get across from LIMS to BioChek is mentioned below.

Check BioChek II Software > Configuration > Software Settings > Flock/herd codes which codes have been activated for Input in the plate layout (see below).

Flock	/Herd Items							
	Item	Rename Item	Define Values	Input Flock cod	e Input Mandatory	Search screen	Reporting	Order
1	Sampling date				V			1 🚔
2	Customer-Name			V	1			2 🌩
3	Company			V		V		3 🌩
4	Street							4 🌩
5	House number			v				5 🌩
6	Zip code							6 🌩
7	City							7 🌩
8	Туре							8 🌩
9	Birthdate							9 🌩
10	Age							10 🌲
11	Breed							11 🌲
12	Sample Database code							12 🌩
13	Manager							13 🌲
14	Sample ID							14 🚔
15	Operator							15 🌲
16	Reason							16 🌲
17	Reader							
18	Additional info1							
19	Additional info2							
20	Free for use 4							
21	<free 5="" for="" use=""></free>							
22	Barcode							
23	Vaccination Program							
24	Vaccinations	[]						
25	Sample Type			V				
26	Submission Date							

BioChek 2018 software (new install or updates from previous versions) can be downloaded here: https://server.biochekonline.com/tools/downloads/SetupBiochek2018.exe

How to import plate layouts



Brows and select the .XML file and click Open

V Open	Contract or Disp's	-					×
🕞 🕞 🖉 Desktop 🔸					👻 🔩 Search D	lesktop	٩
Organize 🔻 New folder						s • 🗊	0
★ Favorites	Name	Size	Item type	Date modified			
Desktop	LIMS.xml	4 KB	XML Document	31/08/2017 11:50			
Downloads							
ConeDrive							
Recent Places							
🥽 Libraries							
Documents							
Music Pictures							
Tiede							
Videos							
Computer							
L TB1333600A (C:)							
SDHC (D:)					No. 11	(4 D	_
File nan	ne:				 XML-files 	(*.xmi)	-
					Open	Canc	el

The import file will be validated and if all criteria were passed the plate layout appears and the test can be performed.

	🛸 B	lisa-Test IBD													
1	E.	Elisa-Test I	BD								La	it number:	Select Assay		
Elisa-Test	Plat	e1													
6		1	2	3	4	5	6	7	8	9	10	11	12	Plate	
qPCR-Test		-	BoChek	BoChek	BoChek	BioChek	BoChek	BloChek	BioChek	BoChek	BoChek	BioChek	BoChek		Sample Que
	Â	Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read		Create plat
		-	BioChek	BoChek	BioChek	BioChek	BioChek	BioChek	BioChek	BioChek	BioChek	BioChek	BioChek		IByout
	B	Not Read	01/05/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read		Clear plat layout
		+	BioChek	BoChek	BoChek	BioChek	BioChek	BioChek	BioChek	BoChek	BioChek	BioChek	BoChek	-	
	C	Not Read	01/09/2017 Not Bead	01/09/2017	01/09/2017	01/09/2017 Not Read	01/09/2017 Not Bead	01/09/2017	01/09/2017 Not Read	2	Load plate layout				
		•	BoChek	BoChek	BoChek	BioChek	BoChek	BoChek	BioChek	BoChek	BoChek	BioChek	BoChek		Save plat
	U	Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/05/2017 Not Read	01/09/2017 Not Read		Print plate						
		CR100 (RF13)	BoChek	BoChek	BioChek	BioChek	BoChek	BoChek	BioChek	BoChek	BioChek	BioChek	BioChek		layout
	E	Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	-	Import plat layout
		CR100 (RF13)	BoChek	BoChek	BioChek	BioChek	BoChek	BioChek	BioChek	BoChek	BioChek	BioChek	BioChek	Result	
	F	Not Read	01/05/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	Click S	ave Re	sults	01/09/2017 Not Read	3	Read plate
		CR300 (RS04)	BoChek	BoChek	BoChek	BioChek	BoChek	BioChek	BioChek				Bounek	LO	-
Reception		Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read		Saveresu
		CR300 (RS04)	BioChek	BoChek	BioChek	BioChek	BoChek	BloChek	BioChek	BoChek	BloChek	BioChek	BoChek		Edit Result
Test		Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/09/2017 Not Read	01/05/2017 Not Read	01/09/2017 Not Read	0	Quaratine						
Reporting	Plate	e Summary Quick	Setup											0	Hesults
Monitoring		Well's Samp	les Lab code 01/09/2017	Sample	type Custome BioChek	r-Name	Company	Beeding 01/09/2	g date Birth date	Age	Туре	Hou	se number		
Customers		H4F7 23 G7E10 23	01/09/2017 01/09/2017	151824 151827	BioChek BioChek			01/09/2	2017 2017						
Configuration		F10:H12 19 E1:F1 2	01/09/2017	151829	BioChek			01/09/2	2017						
Evened		01:01 2													

Add comments to the plate layout

Now it is possible to add a comment to your plate layout.

Go to Test > Elisa-Test and create your plate layout. Then, you can click on COMMENTS and add text that will be stored with the plate layout.

One can retrieve the information via Edit Results. In case comments are added to the plate layout, the COMMENTS button will turn orange.

	1	- A		They Test												
at		software Se	ettings 🥦	Elisa-Test												
se an	53	Elisa-	est									Batc	h Number: FS	Select	Assay	
Elisa-Test	Pla	te1														
6			1	2	3	4	5	6	7	8	9	10	11	12	Plat	•
qPCR-Test																Sample Que
	A 1	Not Rea	d	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read		Create plate
																E layout
	В	Not Rea	d	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Bead		Clear plate
			-													
	C	Net Dee		Net Deed	Net Deed	Net Deed	Net Deed	Net Deed	Net Dead	Net David	Net David	Net David	Net Deed	Net Paged	2	Load plate
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	D														- E	layout
		Not Rea	d	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	- 2	Print plate
	E														9	
		Not Rea	d	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read		limport plate
	F														Res	ults
		Not Rea	d	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	- 2	Read plate.
	G															
Reception		Not Rea	d	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	. 6	Save result
Test	— н															Edit Reculte
Test		Not Rea	d	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read		H Contriesons
Reporting	Qu	ck Setup	Plate Sum	mary											- 0	Quaratined Results
Monitoring	W	ell Co	ount Pla	te Wells	LabCode	Submitted	Bled	Farm		Company	1	House number	Region	Manager		Comments
, <u>-</u>																
Customers																
Configuration																
Support	<			1	1	1	1								>	
Sabbour																

Data Management

Custom export to LIMS (CSV file)

Raw data can be exported to laboratory information management systems (LIMS) by generating CSV (comma separated value) or text (TXT) files containing BioChek data.

Setup of Custom Export

First the Custom Export must be setup.

- 1. Go to **Configurations > Software Settings > Custom Export tab**.
- 2. Determine:
 - a. the Export Path (location the file will be stored)
 - b. flockbased or sample based data
 - c. CSV or TXT format
 - d. Demiliter (symbol that separates the values)
 - e. Include headers (names of the flockcodes)
 - f. Ask for a file name
 - i. off: the file will get the default name (biochekexport.csv/txt)
 - ii. on: for every export the user will be asked to give the file a name
 - g. Decide which codes should be included in the export file
 - i. Tick the box of the flock codes and click on the >>> button to move them to the right
 - h. Determine the order of codes in the export file
 - i. Select a code in the right window and move it **Up** or **Down**
 - i. After all is setup, click SAVE SETTINGS

Extrac	tion Methods (PCR)							Save Settings
Vao	cination programs	Type Of Ani	mal	Readers			Assays	
F	Report Settings	Monitoring pro	grams	Sample Ty	Covo	Cottingo	Lab-Departments	
G	ieneral Settings	Users		Flock/Herd (Save	Settings	Software Updates	
	Target Titer	Vaccines		VDP Pars			Custom Export	
Custom Export								
Export Path:	C:\BioChek CSV							
Alternative Path:								
	File Layout:	File Format:	Options:					
	Flock based	CSV	Delimiter: .					
	Sample based	© TXT ◎	Include headers					
			Ask for Filename					
Available columns			Columns in Export					
Column <pre></pre>	Add infor	mation to the	AppDaglay Pide Test Assay Abbreviation Birth Date Breed Description Company Name CW GMT HouseNumber reports_ritepretationCV reports_ritepretationCV					
Barcode Birthdate City Column Company Dustomer-Name	them to the	e by moving he right field	reports_irrepretationTer reports_irrepretationTer reports_irrepretationVi LabCode Manager MaxTiter reports_maxTargetCV reports_maxTargetVi reports_maxTargetVi			determine flo	the order of the ckcodes	

- Automatic export to an online database
- Automatic backup service of your server database

Use of Custom Export – Generate the export file

1. To generate the custom export file, go to **Reporting** and **Search** for the data.

eporting 8	Software Settings Select criteria for re Rock/Herd Lab code:	usa) eporting																
Ilockdiagram/Histogram Numerical Summary	Select criteria for re Flock/Herd Lab code:	eporting																
Numerical Summary	Flock/Herd Lab code:																	
Numerical Summary	Lab code:		Parame	eters														
Numerical Summary			Period		From: 06/09/201	0 .	12/01/2018	▼ Search	On: Test	Date								
	Constant Inc.	1.1			-		In				10.04							
	Sample type:		Age:		From:	aya) •	2. [L(d)	(5) •										
significan Dista Deservication	Bleeding date	•	Test:		IBD - Infectious B	rsal Disease		*										
cination Date Prediction	Customer-Name				NDV - Newcastle	Disease		1.00										
<u>a</u>	Company				REO - REO	valormelitis												
tiple Results One Page	House number				Ma - Mycoplasma	synoviae												
-3	Type				Mg - Mycoplasma	galisepticum		*										
_	Birth date	-	Titer:		From:	T	22											
eline Titer Calculations	Cada	1010	Vacc. P	rogram:														
=	000		liner		Coll uname													
Electriters Overtime	Reason	1.	User:		<all users=""></all>			121										
- 3	Barcode				Print reference co	ntrols	Print cont	ole										Sear
			Results															
Trend			Catil															
			Set 1															
Farm Histogram			Select	Assay	Test Date	[LabCode]	Bleeding date	Customer-Name	Company	House	Туре	Birth date	Age	Barcode	Code			
			N.					Turkay Hill	Seaccast									
-			(V)	IBV	10/08/2012	08/10/2012 1:34:5.	13/07/2012	Blueberry Hill	Seacoast	6	Broiler B.	18/01/2012	25 W					
Farm Trend			V	IBD	06/09/2010	09/06/2010 12:13:	06/09/2010	Blueberry Hill	Seaccast	2	Broiler B.	01/07/2010	11 W					
			Y I	IBO	06/09/2010	09/06/2010 12:13	06/09/2010	Blueberry Hill	Seaccast	3	Broiler B	01/07/2010	11W					
Control Tracking			V	NDV	13/02/2012	02/13/2012 5:50:2	13/02/2012	Russ Moon	Kims Farm	1								
=3			V	NDV	13/02/2012	02/13/2012 5:50.2	13/02/2012	Russ Moon	Kims Farm	1								
			(V)	IBD	17/05/2012	05/17/2012 1.46:1.	17/05/2012	Raspberry	Seacoast	6	Broiter B.	11/01/2012	18 W					
Flock-All Assays			V	IBD	17/05/2012	05/17/2012 1.46.2	10/05/2012	Raspberry	Seacoast	7	Broiler B.	23/01/2012	15 W					
-			V	IBV	01/11/2010	11/01/2010 12:30:	01/11/2010	Blueberry Hill	Seaccast	1	Broiter B.	20/06/2010	19 W					
			N.	IRV	01/11/2010	11/01/2010 12:31	01/11/2010	Blueberry Hill	Seaccast	2	Broiler B.	01/07/2010	19 W					
teception				AE	01/11/2010	11/01/2010 12:30:	01/11/2010	Blueberry Hill	Seaccast	1	Broiler B.	20/06/2010	19 W					
1			1	AE	01/11/2010	11/01/2010 12:31:	01/11/2010	Blueberry Hill	Seaccast	2	Broiler B.	01/07/2010	19 W					
lest			1	AE	01/11/2010	11/01/2010 12:31	01/11/2010	Blueberry Hill	Seacoast	3	Broiler B.	01/07/2010	19 W					
Reporting			V	IBV	27/05/2014	demo3	01/03/2014	demo derek	fake data	2		02/12/2013	12 W					
exporting			V	IBV	27/05/2014	demo1	15/01/2014	demo derek	fake data	1		01/01/2014	14 D					
Monitoring			V	IBV	27/05/2014	demo2	01/03/2014	demo derek	take data	1		02/12/2013	46 D					
			V	IBV	10/03/2015	1234	15/01/2015	Kamruzaman Khok	Zami Farms	1	Broiler B.	01/10/2014	15 W		coconut			
Customers			1	IBV	10/03/2015	12343	08/10/2014	Kamruzaman Khok	Zami Farms	1	Broiter B.	01/10/2014	7 D		coconut			
			(V)	IBV	10/03/2015	12345	04/11/2014	Kamruzaman Khok.	Zami Farms	1	Broiler B.	01/10/2014	34 D		CORNEL			
Configuration														Export (EXP)	Export (CSV)	Unselect All	Select All	Skip

- 2. Select the data and click on the button **Export (CSV)..** The file will be generated and is stored as BioChekexport.csv in the chosen folder.
- 3. In case the option "Ask for Filename" is ticked, a dialog appears so the user can put in the name of choice.

Import data from BioChek 2010 into BioChek II software version 2018

The BioChek Database importer software allows you to import data from old BioChek software (version 2010) into the new BioChek II Software. It is done in the following way.

- In case there is already data in the new database, make a backup by copying the BIOCHEK II folder.
- After importing, do not use the old software anymore. If you do and new data must be imported into the new database, the whole old database must be imported again.
- Depending on the database size and the performance of the computer, the import can take from a few minutes up to several hours.
- 1. Copy the old database (BIOCHEK.MDB) to C:\BIOCHEK
- 2. Start the importer software in the C:\BIOCHEK II folder by double clicking on Biochekimporter.exe

This following window will appear.



- 3. Select the location of the old database. (Default location is C:\BIOCHEK\BIOCHEK.MDB)
- 4. Enter the destination database. (most of the times Compact)
- 5. Select the year where to import from.
- 6. Press Analyze database for import.

This screen	will	appear:
-------------	------	---------

urce - Database		Import	t data from year:
VBIOCHEK.MDB			2000 💠
estination - Database			
ampact		 Analyse Databases for Imp 	ot
Netamapping ASSAYS Datamapping TYPE	EOFCHICKENS Datamapping VACCINCATION PROGRAMS	MPORT	
16 hite-Software Jason	/ 32 hits-Software Assau		
(AE) Avian Encephalomyelitis	AE		Install Mapping
(Al) Avian Influenza	A		
(Al-ms) Al MultiSpecies			Skip
(ART) ART	ABT		2
(BLS) BLS	BLS		
CAV) Chicken Anemia	CAV		
(EDS) EDS	EDS		
(180) IBD	IBD	1	
IBV) IBV	IEV		
Ma) Ma	Mo		
MpMs) MpMs	MoMs		
MS) MS	Ma		
NDV) NDV	NDV		
0.r.) O minotracheale	ORT		
REO) REO	RED		
SalBD) Salmonella Group B, D			
Sal-D) Salmonella Group D			

Green fields are correct connections between the old and new databases.

Red are not. To correct this, select the red field (1) and click Install mapping (2) and select the corresponding assay.

(Orange are assays that are not installed in the new database. If you want to import these assays too you must create them manually in the new software before importing the old database).



Do this for all red fields. If you don't want to import a field press skip.

- 7. Now check for the correct connections in the datamapping TYPEOFCHICKEN and datamapping VACCINATION PROGRAMS and change when the connections are red.
- 8. If everything is selected correctly go to import and press start. The old database will be imported in the new software. (Caution this can take a while and uses a lot of computer capacity)

P Biochek Database Importer version 3	
Source - Database Import data from E \BIOCHEX.MD8	Jea:
Destination - Database	
Company • Analysis Lasticeses for inform	
Detemopping ASSAVS Detemopping TYPEOFCHICKENS Detemopping VACCINCATION PROGRAMS IMPORT	
	START
	1

Automatic export to an online database or location on the computer/server

With the 2018 version of BioChek one could schedule a fully automatic export service to an BioChek online database. This allows you to work locally (Compact database) but transfer your data to the online database and access the data any time anywhere. One can decide which assays are exported.

- 1. Go to Configuration > Database.
- 2. Select the database on which you want to set the Automatic export on (only local or server database).
- 3. Then, click **Automatic Export**. Download the Automatic Export Service by clicking on the link (or go to https://server.biochekonline.com/tools/downloads/)
- 4. Install the export service in the location you desire (on PC or server). Remember the location!
- 5. Setup the Export service by clicking on Automatic Export Service and the following dialog will open

Export Settings		
🚰 Settings Automatic I	Export	
Location BioChek-Export service		
C:\Program Files (x86)\BiochekExpo	ortService	
Export time:	17:00 Seport Customer Info Create Logfile Warn on Service Failure	
Export to folder:	C:\BIOCHEK II\export service	
Export to webservice:		
	AccessCode:	
Assays:	IBD - Infectious Bursal Disease	
	✓ IBV - Infectious Bronchitis ✓ NDV - Newcastle Disease	
	REO - REO	
Export to culture:	Dutch (Netherlands)	
Exclude data before:	11/06/2018 V Last Export: 6/12/2018 5:00:35 PM	
INSTALL THE BIOCHEK EXPORT SC	DFTWARE	
	Cancel	Done

- 6. Location BioChek-Export service: Define the location where the export service is installed.
- 7. Export time: Define at what time the service will run.
 - a. NOTE: when the service is installed on a PC and not on the server, make sure that the export is scheduled during office hours. In case the service was not able to run because the computer was already turned off, it will run with the next scheduled period and export all data since the last successful export. This means that no data will be missed if the service didn't run.
- 8. **Export Customer info:** Choose if you want to add the registered Customer info to export file (recommended in most of the occasions).
- 9. Create Logfile: Define if you would like to create a log of the export service (recommended)
- 10. Warn on Service Failure: Define if you want to receive a message if the service didn't run as it should (recommended)
- 11. Export to folder: define location where to store the export files
- 12. **Export to webservice:** here you have fill the URL of your online database to directly import into the online database. Ask your BioChek representative for this URL
- 13. Accesscode: encryption required to access the database. Ask your BioChek representative for this URL.
- 14.

Automatic backup service of your server database

Go to Configuration > Databases > click Automatic Backup Settings

1. Download the automatic backup software by clicking on the link

Backup Settings		
Settings Auto	omatic Backup	
Location Biochek-Back	kup service	
c:\biochekbackupservice	e	
Backup on day(s): Backup time:	✓ Monday ✓ Tuesday ✓ Wednesday ✓ Thursday ✓ Friday	
Backup folder:	C:\Biochek II\Backup	
Backup databases:	C:\biochek II\biochek.sdf C:\Users\tiedebijlsma\Documents\Databases\Biochekdemo.sdf	Add BioChek Database Remove from list
	Cancel	Done

- 2. Follow the installation wizard and install the BioChek backup service.
- 3. Add a database by clicking Add BioChek Databases
- 4. Define the backup settings (day's, time, backup location)
- 5. Click Done to finish.

Backup Settings	
Settings Automatic Backup	
Location Biochek-Backup service	
c:\biochekbackupservice	
Backup on day(s): 🗹 Monday 🗹 Tuesday 🗹 Wednesday 🗹 Thursday 🗹 Friday 🗌 Saturday	
Backup time: 14:41 Warn on Service Failure	
Backup folder: C.\Biochek II\Backup	
Backup databases: C:\biochek II\biochek sdf C:\Users\tiedebijIsma\Documents\Databases\Biochekdemo.sdf Add BioChek Databases\Biochek Databases\Biochekdemo.sdf Remove from list Remove from list	ISE
INSTALL THE BIOCHEK BACKUP SOFTWARE	
Cancel Done	

PCR

PCR Test – design a plate lay-out

- 1. Go to **Test > qPCR-test**
- 2. **Create plate lay-out** or double click on the first empty well. The following screen will appear: The example has been filled in partially

×			Biochek 2015.0.0.0 - BIOCHEK ADMIN	ISTRATOR			-	٥	×
Test		🌻 Software Settings 🛛 🙀 qPCR-Test							>
~	> YI	D D-D-Tort	Biochek 2015.0.0.0 - BIOCHEK ADMIN	ISTRATOR			-	٥	×
Test	1	🎐 Software Settings 💀 qPCR-Test							×
	à (1	gPCR-Test							
			Plate Coding					×	
	Fill Codes								
			Cle	ear Code Fields	Fill Location				ue
	General Extras				Starting in: A	/ 1 🗸			iyout
	Landra and L	10000000000			Number of samples:	20 🗧 🗹 Controls Included			
	Lab code:	3-5-2016 11:15:51			(96 available cups)				yout
	Submission da	te: 03-05-2016 🗸			Fill Style				
	stroked and faster 2000, installer made			+	O Horizontal	 Vertical 			
	Vaccination pro	ogram		V +	Assay		-		
	Bleeding date	e 03-05-2016 ¥			MgMs	19-1-1		4	
	Customer-Na	ime .			Extractionmethod:	GeneAid	~		
	Company				SampleType:	Tracheal Swab			
Rec 8	House number	to [LotNumber:	1234			
	Туре			~	MasterMix:	338 µl			h
🥵 Test	Age	Day(s) V			PPICMix:	202 µl			s
Rep	Code				KIPHX;	u 0			
	Reason				Standards				ł
Mor					Mg	Ms n/a			
Cust					n/a	n/a			
Con						FILL			
Sup					H	F	nish		

- 3. Select a starting well for the assay in the section "Fill Location"
- 4. Select the number of samples with or without controls in the section "Fill Location"
- 5. Select vertical or horizontal filling of the plate in the section "Fill Style"
- 6. Select a qPCR assay in the section "Assay"
 - 6.1 The pre-defined Extraction method is displayed, this can be changed
 - 6.2 Select a pre-defined sample type Sample types can be added
 - 6.3 Assign a lot number to the assay For kits previously used a window will appear and ask to use the current lot number
 - 6.4 For quantitative analysis, select the standards for the target you wish to quantify.
 - 6.5 Standards are required to be done at least once per lot number per kit for quantification. If standards have been used for the current lot, it is indicated by a statement below the 'Standards Required' section
- Assign customer information and flock/herd information to the samples in the section "General"
- 8. Select "FILL"
- 9. If required, add additional qPCR assays to the plate using the instructions above

10. If the plate is completed select "**FINISH**": Please see below an example of a plate layout. For this example, the following assays on the plate below are: MgMs, Salmonella and infA

Piet 1 2 3 4 5 6 7 8 9 10 11 A NoReal Saturate Manual Saturate Manual Saturate Manual 100 11
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
A Mula Mu
Not Read
B Ayla B
Na Radi Na Radi <t< td=""></t<>
R0 C R0 Build Ref Ref R0 Build Ref R0 Build Ref
No Read No Read <t< td=""></t<>
Bit
No. Red No. Red <t< td=""></t<>
E Max
Inclusion Inclusion <t< td=""></t<>
P Rot Mode Rot Mode Rot Schmodel Rot Schmodel Rot Schmodel Rot Schmodel Rot Schmodel Rot Schmodel Rot Schmodel <throt schmodel<="" th=""> <throt schmodel<="" th=""> <throt s<="" td=""></throt></throt></throt>
Interface Nor Read
Pic No. Pic
Not Read
RD RD RD RD RD 18 18 18
H (MgMa) (MgMa) (Salmonela) (Salmonela)
Not Read
Paro Summary Palee Volumes

- 11. Wells can be copied, moved or deleted on the plate:
 - 11.1. Copying a well: select the desired well and then right click with the mouse button to access the well options. Select "copy", paste the desired well in an available empty well.
 - 11.2. Moving a well: select a vertical row or individual well and click and drag it to its new empty location. Multiple wells can be selected by holding the shift key while selecting the wells.
 - 11.3. Deleting a well: select the well and right click the mouse button to access the well options. Select "delete cup"
- 12. It is possible to assign individual numbers or descriptions to wells. Select a well and right click on it. Select "sample numbering" and the following screen will appear

1	2		3	4		5			6		7		8	9		10	11	12
		Demo		Demo	1		1	Demo		Demo		1	i		_		1	1
PRRS		(PRRS)		(PRRS)				(PRRS)		(PRRS	ŋ							
lot Read	Not Read	Not Read		Not Read	N	x Read	_	Not Read		Not Re	ad	Not Read	_	Not Read	No	t Read	Not Read	Not Read
nne		Demo	_	Deno				Demo		Denn								
'HHS		(PRRS)							Plate-	Sample	numbering						_	
kt Read	Not Read	Not Read	🚯 Pla	te Sample	number	ing											Not Read	Not Read
		Demo		1	2	3	4		5	6	7	8		10	11	12		
		(PRRS)	in the second se	1	-	Demo	Demo		-	Demo	Demo		1	-				
lot Read	Not Read	Not Read	A	PRRS			07	_									Not Read	Not Reed
		Demo		+		Demo	Demo	-	_	Demo	Demo	-	1	-	r	1		
	1	(PRRS)	в	PRRS				_				ļ	ļ		ļ			
lot Read	Not Read	Not Read				16	08	_		18	26		<u> </u>				Not Read	Not Read
		Demo	с			Liemo	Liemo			Liemo	Liemo							
		(PRRS)				01	09			19	27		1					
Not Read	Not Read	Not Read				Demo	Demo			Demo	Demo						Not Read	Not Read
		Demo				TEST	10			20	28	1	1	1		1		
		(PRRS)				Demo	Demo			Demo	Demo	1	T		1			
Not Read	Not Read	Not Read	E			03	11	_		21	29			-	л		Not Read	Not Read
		Deno				Demo	Demo	-		Demo	Demo	1	ŕ	<u> </u>	(1		
		(PHRS)	F	<u> </u>		04	12	_		21	20							
Vot Read	Not Read	Not Read	-			Demo	Demo	-	_	Demo	Demo	-	ŕ	-	I	1	Not Read	Not Read
		(PRRS)	G	ļ								ļ	ļ		ļ			
		(FRRS)				05	13	_	_	23	31							
Not Read	Not Read	Not Read	н			Demo	Demo			Demo	Demo						Not Read	Not Read
Summary Plate Volu	mes					06	14			24	32							
Vell's Assay	Samples Labcode		1														umber	
1H7 PRRS	34 31-8-2016	09:54:57												OF	(Cancel		

- 12.1 The white boxes can be filled in with details to assign a number or a short description to a PCR well. This number or short description will be on the report.
- 12.2 It is also possible to let the software automatically number your samples with a preferred prefix such as "sample" or "test". For this, right click in the starting well in the plate sample numbering screen, then click "add range". The screen below will appear.

• Vali	lid	• Val	d	Valid		Valid	///////////////////////////////////////	Valid		Valid	Valid		Valid		Valid
Ha	ans	Ha	ns	Hans		010^5	111117411	A +		Hans	Hans	2	Hans		Hans
						Plat	e-Sample r	numbering						34	24-10-16 0838
		o Samol	o numbo	rina											
		e Sampi	enumbe	ang											Valid O10^2
		1	2	3	4	5	6	7	8	9	10	11	12		Hps
		- Actinobacillu	Hans	Hans	Hans	Hans	Q10^4 Apx I	- Haemophilus	Hans	Hans	Hans	Hans	Q10^4 VtaA10	34	
•	A		7	15	23	31	31		7	15	23	31	31		Valid
		+	Hans	Hans	Hans	Hans	Q10^5	+	Hans	Hans	Hans	Hans	Q10^5	i I.	Hps
	в	Actinobacillu					ample num	herina			<		VtaA10	34	
• 1		-	8			-	ampic non	ibering			4	32	32		• Valid
	c	mans	Hans	Insert	Sample	numberi	ng Range	5			ans	Hps			Q10^4 Hos
		1	9								5			34	
•		Hans	Hans	Star	: Cup: C	1					ans	Q10^3		1	• Valid
11	D	2	10						1		6	Tips		-	Q10^5
		Hans	Hans	Star	number: S	ample 1	Number:	32 -	In	sert	ans	Q10^4		34	rips
	E				From	1	To:			aart		Hps			Valid
		3	11				10.			seit	7				Q10^2
	e	Hans	Hans							Done	ans	Q10 ⁵ Hps		34	VtaA10
	1	4	12							Bono	8			1	N-k-
		Hans	Hans	Hans	Hans	Q10^2		Hans	Hans	Hans	Hans	Q10^2		1 -	Q10^3
	G	-	*2	21	20	Apx I	-	-	10	21	20	VtaA10	_	34	VtaA10
		S House	13	ZI	29	010^2	_	0 Hana	13	Z1	29	010*2			
•	н		110115	110115	110115	Apx I		110115	TIGHS	Tid/IS	Tights	VtaA10			• Valid
		6	14	22	30			6	14	22	30				
														House	number
08372	Re	set	Empty									ок 📗	Cancel	, iodae	numbor
083834	FTAc	ards	Hans		Va	porinova	24-10-2016	5							

- 12.3 Assign a start number, for example "sample 1" and define the amount of samples you want numbered. Then click "insert" and the full range of samples will be numbered with your desired prefix. Click "done" and then "ok".
- 12.4 To make the sample numbers or descriptions visible on screen, tick the 'Show Sample Names' box as shown below. If the numbers or descriptions are visible, it can be printed (see 14 &15) and used as a visual aid to help to load the plate.

	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Get Results
	Demo	Demo						Save Plate
	(PRRS)	(PRRS)						
	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Save Plate As
	Demo	Demo						Edit Results
	(PRRS)	(PRRS)						
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	(PBBS)	(PBRS)						
	(1110)	0.1110)					1	
	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	
	Demo	Demo						
	(PRRS)	(PRRS)						
	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	
	Company Samp	oling date Age	Туре	Code	Reason H	łouse number		
E	BioChek 31-8-	2016						in the second
								Results
								O Analysis
								O FAM O HEX
								O TEXAS RED O CY5
								\sim
								Show Sample Names

- 14. Select tab "plate volumes" for the calculated reaction volumes.
- 15. **Print plate layout** and then "Save plate". The plate can be given a custom name prior to saving.

PCR Test – running the assay

- 1. Take the print out to room 1 and prepare the qPCR reagents to the specifications found on the print out.
- 2. Use the print out in Room 2 to load the plate with the selected samples.
- 3. Place the sealed plate in the cycler and run either the BioChek DNA protocol or the BioChek RNA protocol on the cycler.

Analysing amplification curves and exporting data to BioChek software

- 1. After the run has finished, the data must be analyzed in the cycler software with the correct analysis settings. These settings can be different for different assays.
- 2. After analyzing the amplification curves with the right settings, the data can be exported for use in the BioChek software.
 - 2.1 For ABI 7500 users with SDS software version 2.06 or higher:a) Click on "export"

- b) Go to Export properties, follow the guidelines below
 - Only select "results"
 - Select "one file"
 - Assign a name to the export file, file type needs to be ".txt"
 - Do not select the option to open a file when export is complete.
- 2.2 For Bio-Rad CFX users with Bio-Rad software CFX Manager 3.1 or higher:
 - a) In the "Data Analysis" screen select "export"
 - b) Select "custom export"
 - c) Export format must be "Text (*.txt)"
 - d) Column separator must be "Comma"
 - e) In the box "sample description" select the following items
 - Well
 - Fluorophore
 - Sample name
 - f) In the box "Quantification" select the following item
 - Cq
 - g) Click on "export"
 - h) Select a target directory for the file and give the file a name "x"
 - i) Click on "save"
- 2.3 For Agilent users with MXPro software or higher:
 - a) Select all wells on the plate
 - b) Under "Analysis", select "Results" tab
 - c) Select "Text report" under area to analyze
 - d) Under "column" select the following items:
 - Well
 - Dye
 - Cq
 - e) Click on File and select "Export Text Report" "Export Text Report to Text File"
 - f) Click on "save"

Assay analysis with BioChek PCR software

- 1. Open the BioChek Software and login.
- 2. Go to "**Test**"
- 3. Select "qPCR-Test"
- 4. Select "Load plate"
- 5. Enter the desired criteria to find the Assay for analysis (test date, Company etc.). See below for an example.

	🖳 qPCR-Test							
6	aPCR-Test: 20161102-12:13:40 [AUTO-MOL	DE, click this co	ontrol to enter MANUAL-MODE	7				
Settingr	•			-				
Securitys	Plate1				_		_	
<u> </u>		_					_	
Utilities	Flock Explorer							
	Search Extended Search Custom Search							
abases	Test Date < 02/11/2016 >	>						
	Lab code:							
	Customer-Name:							
	Company:							
	Bleeding date:						Birth date:	×
	Туре						Breed	•
	Veterinarian						Code	
	Manager						Region	
								Search
	Drag a column header here to group by that column.							
	Test	Assay	Customer-Name	Company	House number	Code	Sampling date	Туре
	20161102-08:41:01 - Campy -Standards, IBD & IBV - dil.						02/11/2016	
ion	20161102-08:41:01 - Campy -Standards, IBD & IBV - dil.	IBD	Ramelia/Hans	BioChek			02/11/2016	
	20161102-08:41:01 - Campy -Standards, IBD & IBV - diL.	Campy	Ramelia/Hans	BioChek			02/11/2016	
	20161102-08:41:01 - APP & HPP - Vaxxinova samples r	HPS	Ramelia/Hans	BioChek			02/11/2016	
	20161102-08:41:01 - APP & HPP - Vaxxinova samples r_	Арр	Ramelia/Hans	BioChek			02/11/2016	
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ing ring ners uration			1	m				Select Flock

6. Select the desired Test and click "Select Flock"

_	an and the				Bio	chek 2015.0.0.0 - BIO	CHEK ADMINISTRA	ATOR					
	Red of CH-Test												
	gPCR-Test:	20160608-12:21:46	lgMs(14), Salmonella(17),	Influenza A(3)									
est	Plate1												_
	1	2	3	4	5	6	7	8	9	10	11	12	Plate
fest	A MgMs	RD 18 (MgMs)		Saimonella	RD 18 (Salmonella)	RD 18 (Saimonella)		influenza A					
	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	
	MgMs B	RD 18 (MgMa)		+ Saimonella	RD 18 (Saimonella)	RD 18 (Saimonella)		influenza A					
	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	
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	C (MgMs)	(MgMa)	42			Get PCR	Results			×			55
	Not Read	Not Read	Not Read	I confirm that I had a visu	ual check on the curves in	the cycler software		S	ielect a File	Not Read	Not Read	Not Read	5.
	RD 18 D (MgMs)	RD 18 (MgMs)		Information									Res
	Not Read	Not Read	Not Read	March 199						Not Read	Not Read	Not Read	
	E (MgMs)	HD 18 (MgMs)		Please select targets you v warning and	one or more files to want to explore. If rea the file will not be add	pet data for the PCR te der-settings for the se led.	t. For every added hi ected assays do not m	e you can choose the natch you will receive	a				
	Not Read	Not Read	Not Read							Not Read	Not Read	Not Read	-
	F (MgMs)	18 (MgMs)											
	RD Not Read	RD Not Read	Not Read							Not Read	Not Read	Not Read	-
	G (MgMe)	18 (MgMa)											
	Not Read	Not Read	Not Read					Get Res	ults Cancel	Not Read	Not Read	Not Read	
	H (MgMe)	18 (MaMa)		(Salmonella)	(Saimonella)								
	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	
	Plate Summary Plate Ve	olumes											
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7. Select "**Get Results**" and the following screen should appear:

8. Before file can be imported the technician must confirm that the amplification curves have been checked by checking the box "I confirm that I had a visual check on the curves in the cycler software." Any deviations can be edited after importing the results.

9. Choose "Select a File"

2					Bio	chek 2015.0.0.0 - BIO	CHEK ADMINISTE	RATOR					- 0
Test	R oPCR-Test												
-	gPCR-Test:		MgMs(14), Salmonella(17),	hikuenza A(3)									
Elisa-Test	Plate1												
18	1	2	3	4	5	6	7	8	9	1	0 11	12	Plate
qPCR-Test	A	RD 18 (MgMs)		Salmonella	RD 18 (Salmonella)	RD 18 (Salmonella)		, Influenza A					Sample Que
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	В	RD 18 (MgMs)		Salmonella	RD 18 (Salmonelle)	RD 18 (Salmonella)		nfluenza A					Clear plate lag
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	D (MgMa)	(MgMs)	l í										Get Results
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	18 (Mol/s)	18 (MeMe)											CONTRACTOR TREASURE
	- Index												Load Results
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	RD	FD					11444	A					
	H (MgMs)	(MgMs)		(Salmoneta)	(Salmonella)								
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Neception	Plate Summary Plate V	Junes											
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- Reporting	A8.E8 Infuer	z. 5 8-6-201	6 12:23 18 Rope	R&D		BioChek 8-6-20	6 45 Day(s)	Broilers		routine check	18		 Analysis

10. Browse for the desired file and open it. The following screen should appear:

Biochek 2015.0	.0.1	Page 1			-				
Test		💀 qPCR-Test							×
3		🐌 qPCR-Test: 20161103-08:40:59 ІВD-ЦОД и	itolence IBV LLOD HPS - 25, 28 origit	nal samples					
Elisa-1	est	Plate1							
18	🛃 Get PCR	Results				9 10	11	12	Plate
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qr ck-	V I contin	m that I had a visual check on the curves in the cycler software		Select a File	100 Copies 10	00 Copies 100 Copies	100 Copies	Haemophilus parasuís	
	Informatio				Not Read No.	ot Read Not Read	Not Read	Not Read	Create plate layout
					E0 Cenice E0	Conice EO Conice	EQ Capital	Haemophilus	Clear plate layout
		Please select one or more files to get data for the PCR : targets you want to explore. If reader-settings for the s	test. For every added file you elected assays do not match y	can choose the	Not Read No	ot Read Not Read	Not Read	Not Read	
		warning and the file will not be added.			Ramelia/Hans R	amelia/Hans Ramelia/Hans	Ramelia/Hans	Ramelia/Hans	
			Select PCR-Data File				×	25 Not Read	
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			🚖 Favorites	Name	Date modif	ned Type	Size		Results
			Desktop	20161018_145832_CT006124_BIOCHEK	DNA 19/10/2016	i 08:01 Text Document	11 KB	Not Read	Get Results
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		Haemo 62.5 µl 37.5 µl 0 µl	Algemeen (\\BIO *						© FAM © HEX
nonitorin	,	Infectio	Filen	ame:		 bt-files (*.bt) 			TEXAS RED CY5
Customer						Open 😽	Cancel		© IC ⊚ AI
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Configurat	tion								Show Sample Names
Support									

11. Select the assay(s) for which the file must be used by checking the appropriate box. If a plate contains more than one assay (all BioChek assays can be used simultaneously), then assays which use the same analysis settings can be imported using one file. Multiple files will need to be used for multiple assays if the analysis settings are different.

					Bio	chek 2015.0.0.0 - Bl	DCHEK ADMINISTR	RATOR					- 0
	Report of the second se												
100	gPCR-Test:		MgMa(74), Salmoveda(7)	7), kilkumza A(I)									
Elisa-Test	Plate1												
18	1	2	3	4	5	6	7	8	.9	10	11	12	Plate
gPCR-Test	A	RD 18 (MgMa)		- Salmonella	RD 18 (Sainonella)	RD 18 (Saimoneta)		Influenza A					Sample G
	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	
	в	RD 18 (MgMs)		Salmonella	RD 18 (Salmonella)	RD 18 (Saimonella)		nfuenza A					Clear plate
	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	Not Read	
	C MgMu	HD 18 (MgMu)		180	THE	Get PCI	Results	1 HD					DA -
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	D (MgMs)	HD 18 (MgMs)		Information 1-Sillem result	ta - koșie bd								Results
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	Not Read	Not Read	Not Read							Not Read	Not Read	Not Read	
	F (MgRAs)	15 (MgMa)											Edit Res
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	G (MgMa)	18 (MgMai)							Remove this File				
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Reception	Plate Summary Plate 1	lolumes											
Test	Well's Assa	Samples Labcod	e Sampie	ietype Customer-Name	1	Company Blaed	ng date Age	Туре	Code	Reason H	ouse number		
Reporting	A1.H2 MgM A4.C5 Saim 49.59 Md a	16 8-6-201 m_ 19 8-6-201	6 12:21:48 Trache 6 12:22:57 Dust a	eal Swab R&D samples R&D		BoChek 8-6-2 BoChek 8-6-2 BoChek 8-6-2	16 45 Day(s) 16 45 Day(s)	Brollers Brollers		routine check 1 routine check 1	8		Results

- 12. Select "Get Results"
 - 12.1 The BioChek software will analyze the positive and negative controls and determine if the assay(s) is/are valid. If the assay is valid, all samples for that assay are checked by the BioChek software for inhibition, validity is determined by the Internal Control parameters.
 - 12.2 If the assay is invalid due to a problem with either the negative control or the positive control, then a cross will appear for all wells in that assay on the plate lay-out. The software will explain why the assay is invalid. For the example, below the MgMs assay has been made invalid. See picture below for an example.



12.3 If a sample is inhibited, the well will be designated "invalid" with a red orb on the well when the plate is being viewed in "Analysis" mode. This can be seen in wells F1 and C8.



- 13. The plate can be reviewed in a number of ways by selecting the desired option in the lower right side of the screen. The available options are:
 - 13.1 Analysis: Displays technical review of the assays and the samples.
 - 13.2 FAM: Displays all FAM results on the plate (Cq) in the wells.
 - 13.3 HEX: Displays all HEX results on the plate (Cq) in the wells.
 - 13.4 TEXAS RED: Displays all TEXAS RED results on the plate (Cq) in the wells.
 - 13.5 CY5: Displays all CY5 results on the plate (Cq) in the wells.
 - 13.6 IC: Displays all Internal Control results on the plate (Cq) in the wells.
 - 13.7 All: Displays all results on the plate (Cq) in an overview in the wells as seen in the example below.



Editing PCR results

- 1. After importing the data from the cycler, the obtained Cq values can be changed if manual assessment of the amplification curves justifies this. Changing a Cq value for any target can be done in two ways:
 - 1.1 Make sure the software is in "Analysis" mode.
 - a) Select the desired well on the plate by clicking it with the left mouse button
 - b) Access the well options by clicking on the well with the right mouse button.
 - c) Select "Edit PCR Results" the following screen will appear, in this screen the wells can be selected by clicking on the small plate in the editing screen or by scrolling though the list.



- d) Change the Cq value of the desired target and press the Tab key.
- e) Select "Close"
- 1.2 Click on the button "Edit Results"
 - a) Select the desired well as described above.
 - b) Change the Cq value of the desired target and press the Tab key.
 - c) Select "Close"

Saving PCR results

- 1. If all the data on the plate is correct, the plate with results can be saved.
- 2. To save plate, click "Save plate"
- 3. The name of the test plate can be changed prior to saving by clicking on the name and editing it. This will create a new file when saved.

Printing PCR report

- 1. In order to print a report click on "Reporting" option at the bottom left of the screen.
- 2. In the top left of the screen reporting options will be visible. For a PCR report look for red reports. Select the desired PCR report. The following screen will appear:

✓	Biochek 2015.0.0.0 - BIOCHEK ADMINISTRATOR													(- 0 ×
Reporting	🙀 qPCR-Test 📭 Search																	×
<u> </u>	🔡 Select criteria f	for reporting																
Vaccination Date Prediction	Flock/Herd		Parameters															
	Lab code:		Period:	From: 02-06-2016 v	т	03-06-2	016 👻	Search On:	Test Date	¥								
Multiple Results One Page	Sample type:	v	Age:	From: Day(s) ~	т	D:	Day(s) v											
	Customer-Name	~	Test:	App - Actinobacillus pleuropneur	oniae		^											
Baseline Titer Calculations	Company	v		InfA - Influenza A														
	House number	~		PCV2 - PCV2														
Flocktiters Overtime	Туре	~		Salm - Salmonella			~											
	Code	v	Titer:	From:	т	01												
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Support															Report st	yle PCR Blockdiag	ram 🗸	Preview Report
:											C(bioch	hek ii/Bioc	hek.sdf 🧕	BioChek BV	2 Bioch	iek Admin 🔅	BEAR / PC	R-ABI

- 3. Select the test(s) you want to report by using the different search options (assay, period, user etc.) Multiple assays can be selected (all from 1 plate for example).
- 4. Click on "preview report" and the report will be generated. Please see below as an example. First page of the PCR report "block diagram" for MgMs results. If more than one target exist for an assay, then one report will be generated for each target individually.



5. The report will display the following:

- All the entered flock/herd data
- Validity of the negative and the positive control.
- Cq values for all targets in the assay individually
- Spread of the Cq values in a histogram
- Summary of relevant data (number of positives/negatives, number of samples)
- Table with all samples in the flock/herd specified
- Both quantitative and qualitative results if standards were recorded for the kit batch used If **no standards were used** for the kit batch, the report will only display the qualitative results.
- 6. The report can be printed or exported (different formats include pdf, Excel etc.).