

From Noldus file to Visualisation part 1 : Noldus

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1. INSTRUCTIONS

For all my analysis, I used Ethovision XT12 :



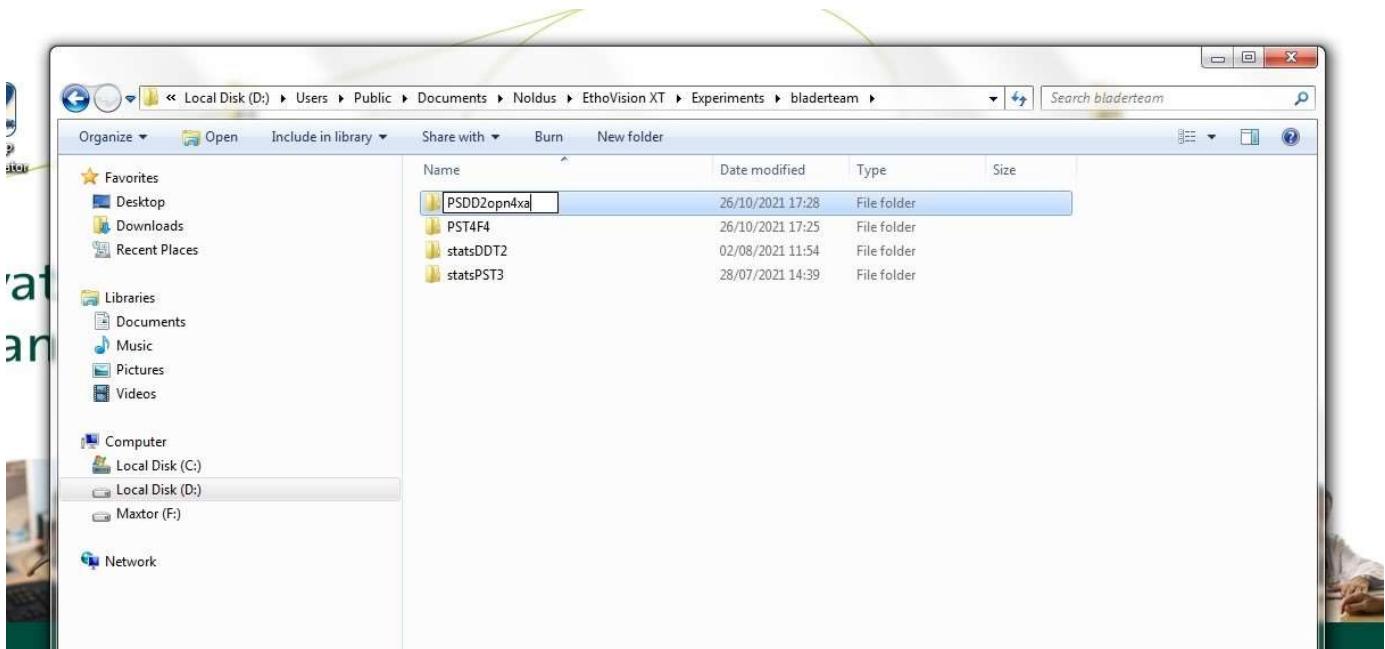
Follow the instructions in the "step by step example" for each experiment you make.

For this example I used the PSDD2opn4xa experiment (8 movies labelled PSDD2opn4xaF1 to F8).

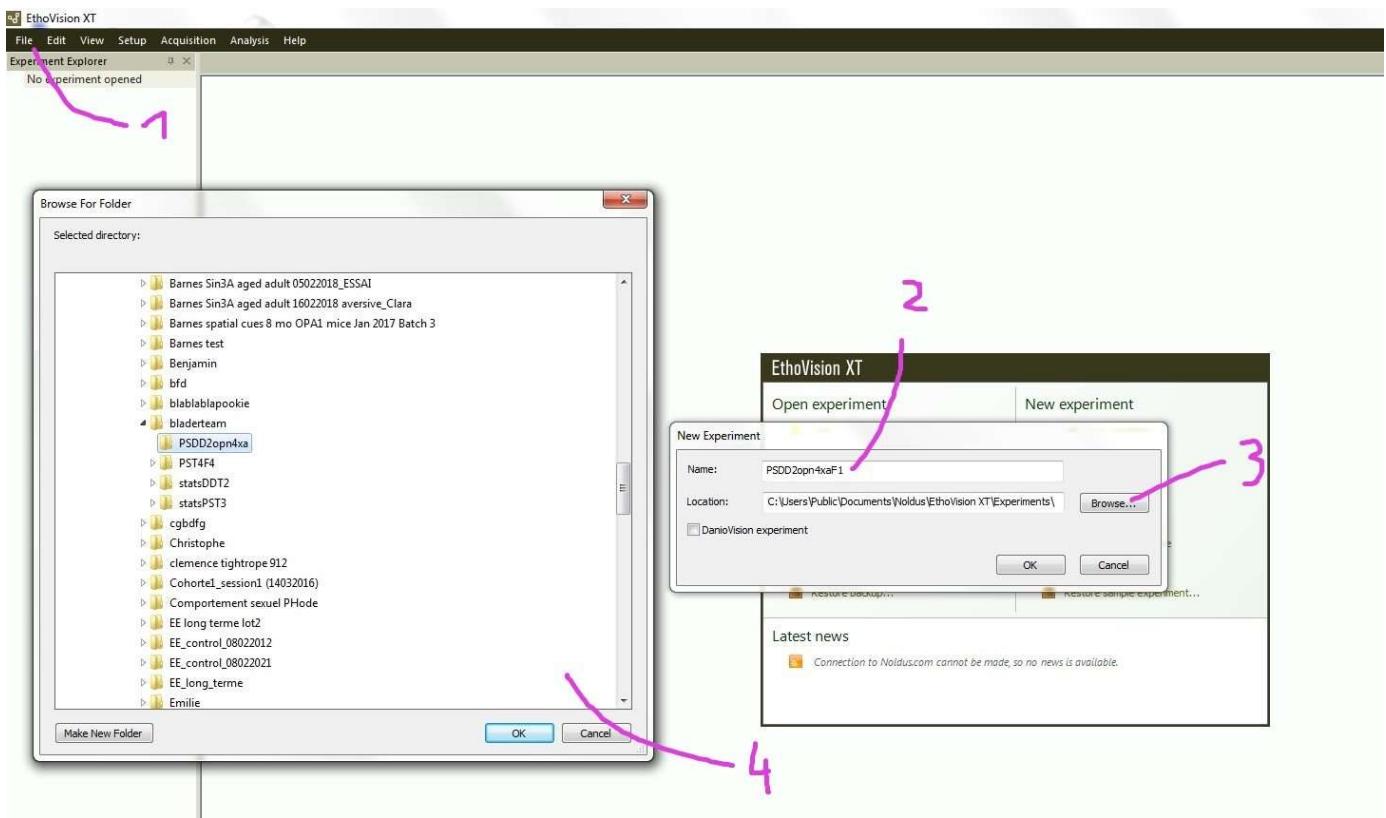
2. STEP BY STEP EXAMPLE

For this example I used the PSDD2opn4xa experiment (8 movies labelled PSDD2opn4xaF1 to F8).

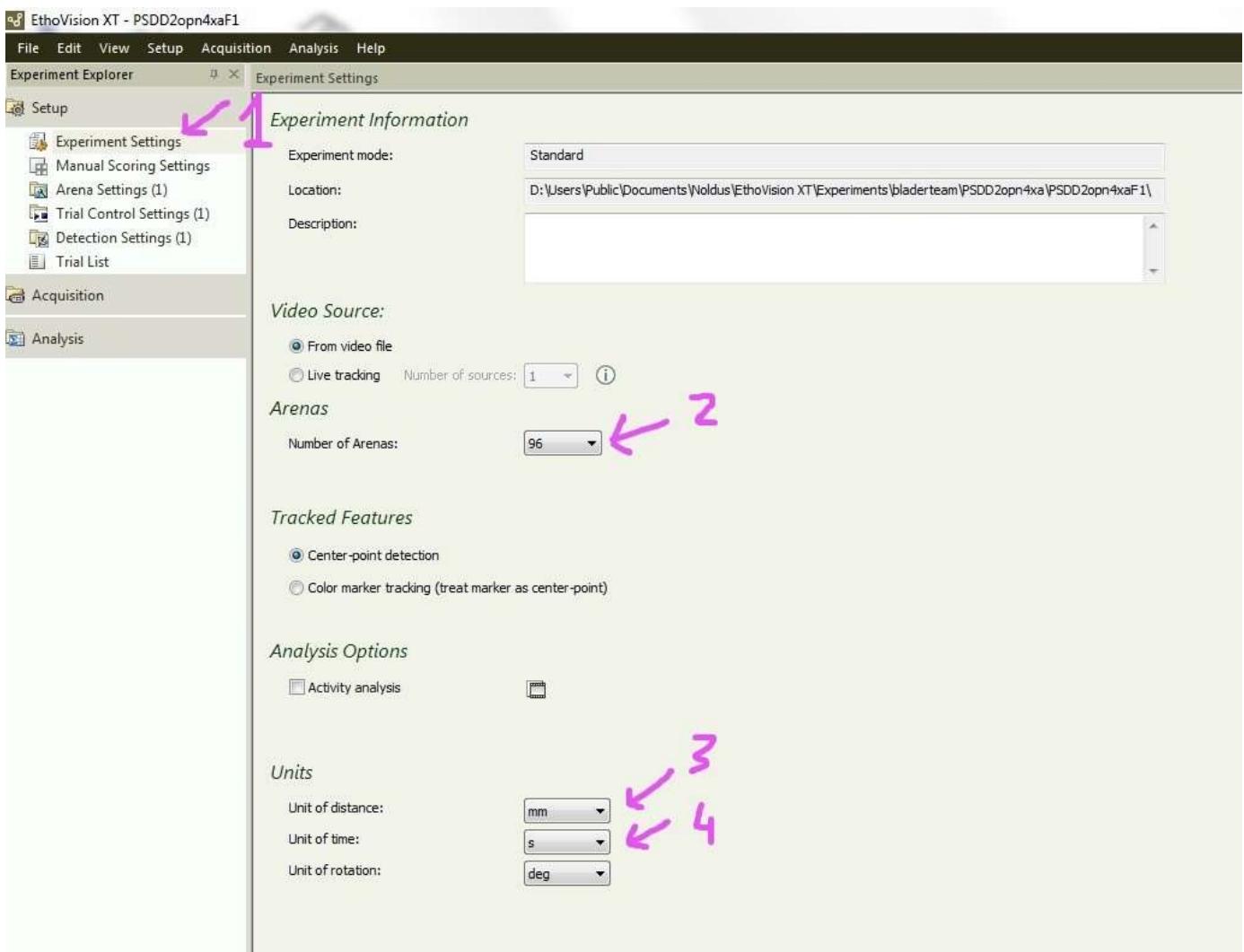
1. Create a folder for your experiment (here "PSDD2opn4xa")



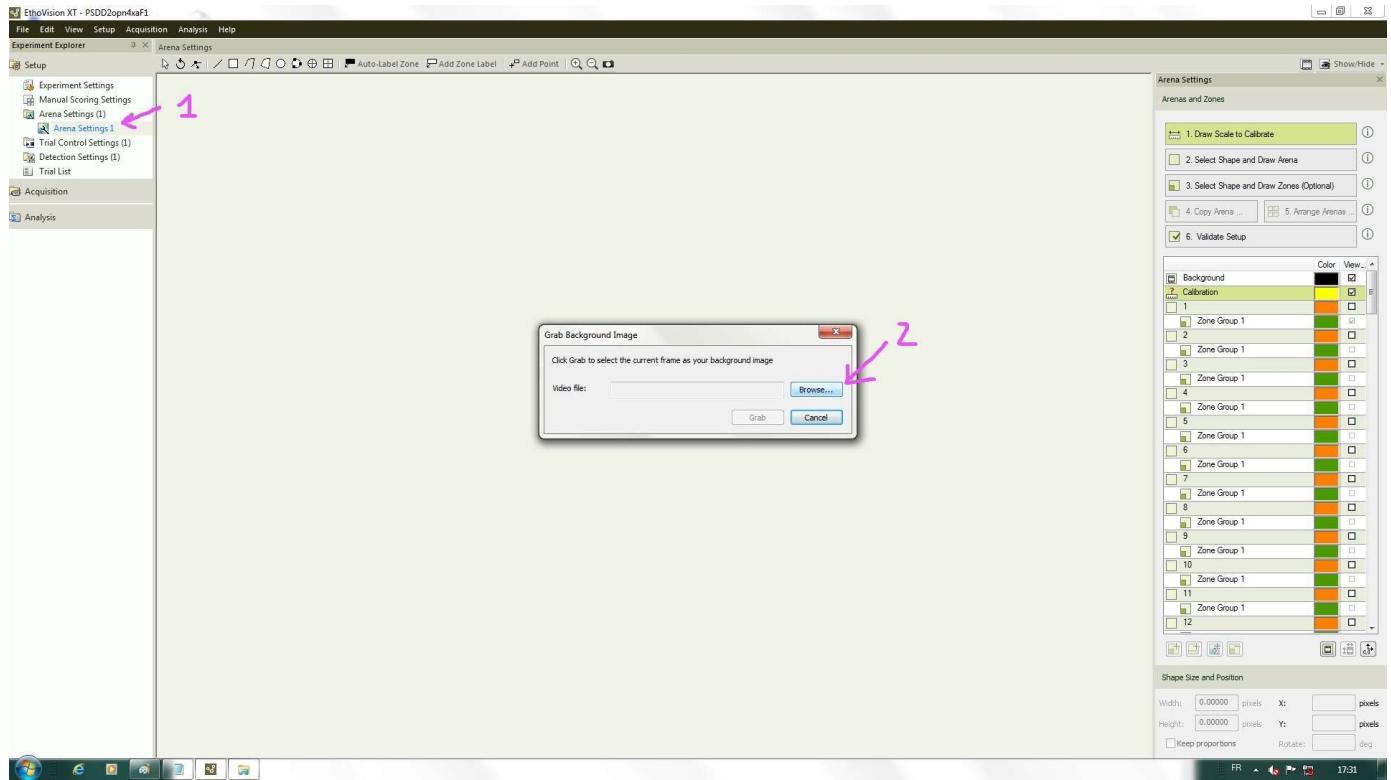
2. Open Ethovision and create the first file (1) (File->New File) , (2) name it accordingly (PSDD2opn4xaF1) and (3-4) choose the correct location to save it (PSDD2opn4xa). In the next step (steps 3 to 16), you will set the correct settings for this file (F1 file) and then create the other files (F2 to Fn) from this file (F1 file)



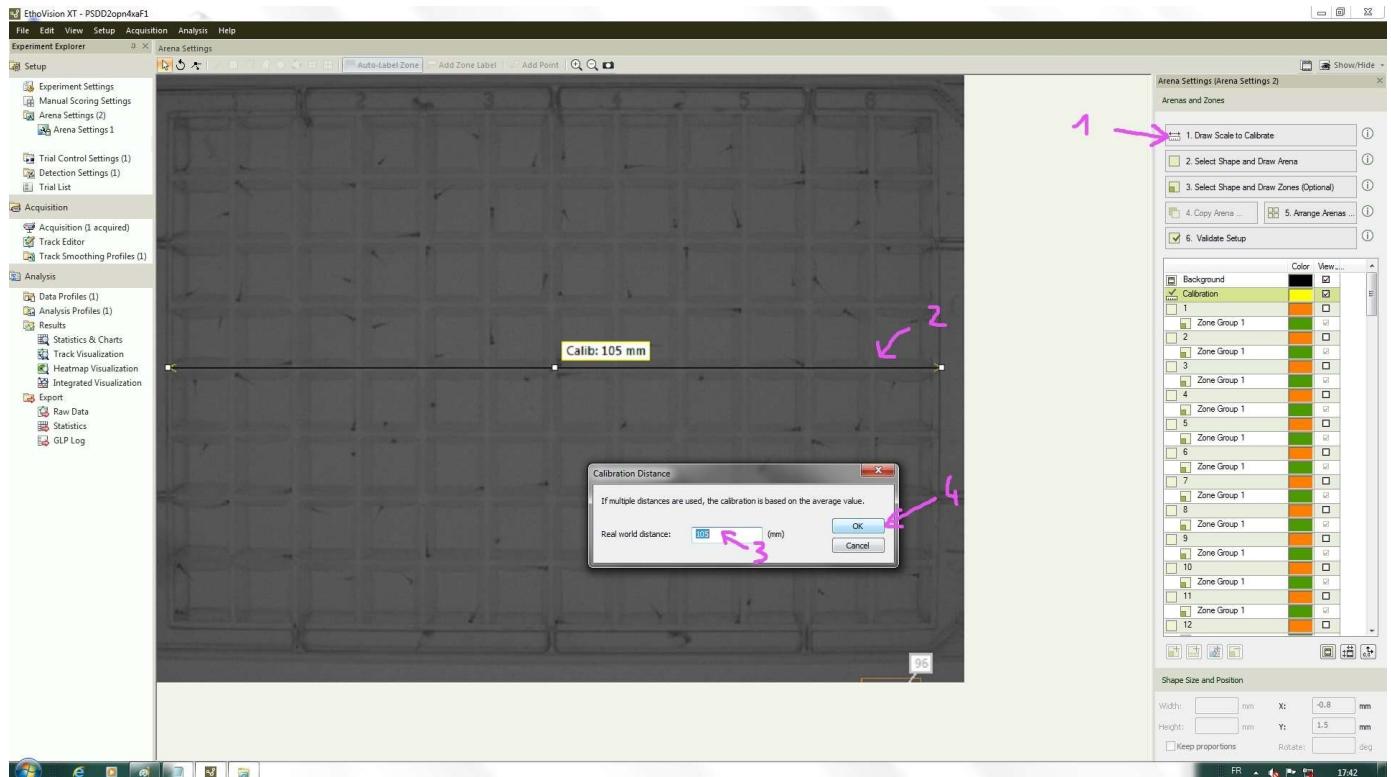
3. Experiment Settings : in (1) Experiment Settings , (2) choose the correct number of Arenas (96),(3) Unit of distance (mm) and (4) Unit of time (s)

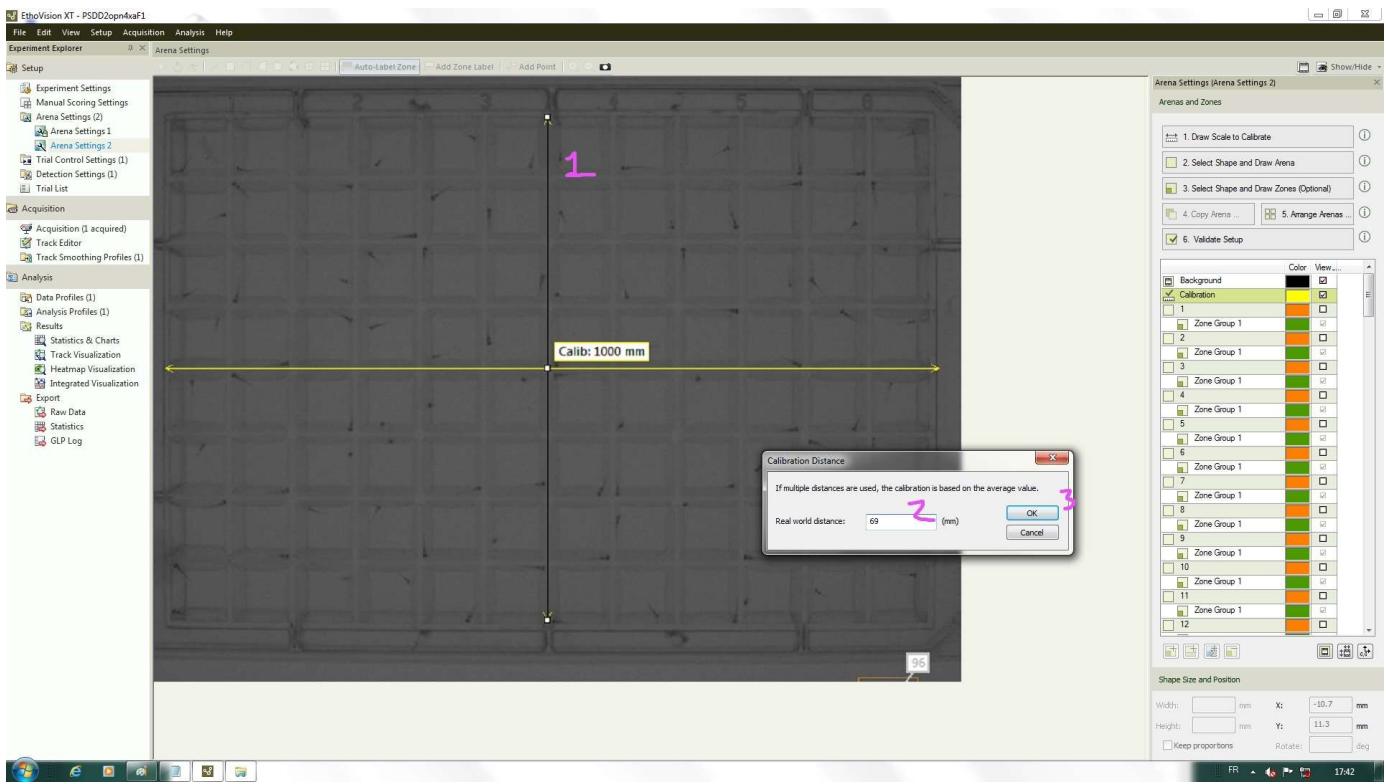


4. Arena Settings : Background Image : in Arena Settings , choose the Background Image (the window will automatically pop up, click on Browse and choose your first Video)

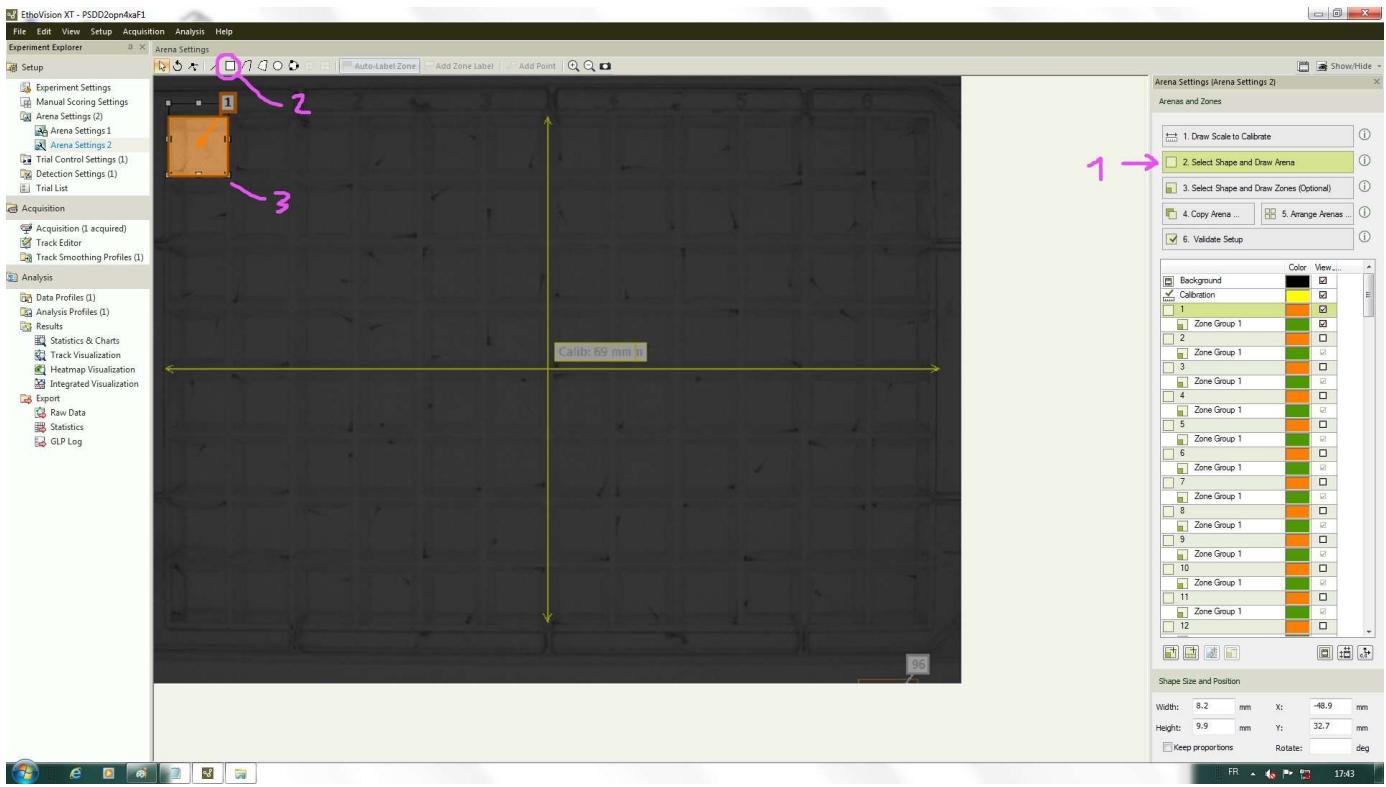


5. Arena Settings : Calibration : (1) click on Draw Scale to Calibrate to specify the plate dimensions : (2) draw an horizontal arrow and (3-4) specify the distance in mm (105 mm) ; do the same for the vertical dimensions (69 mm)

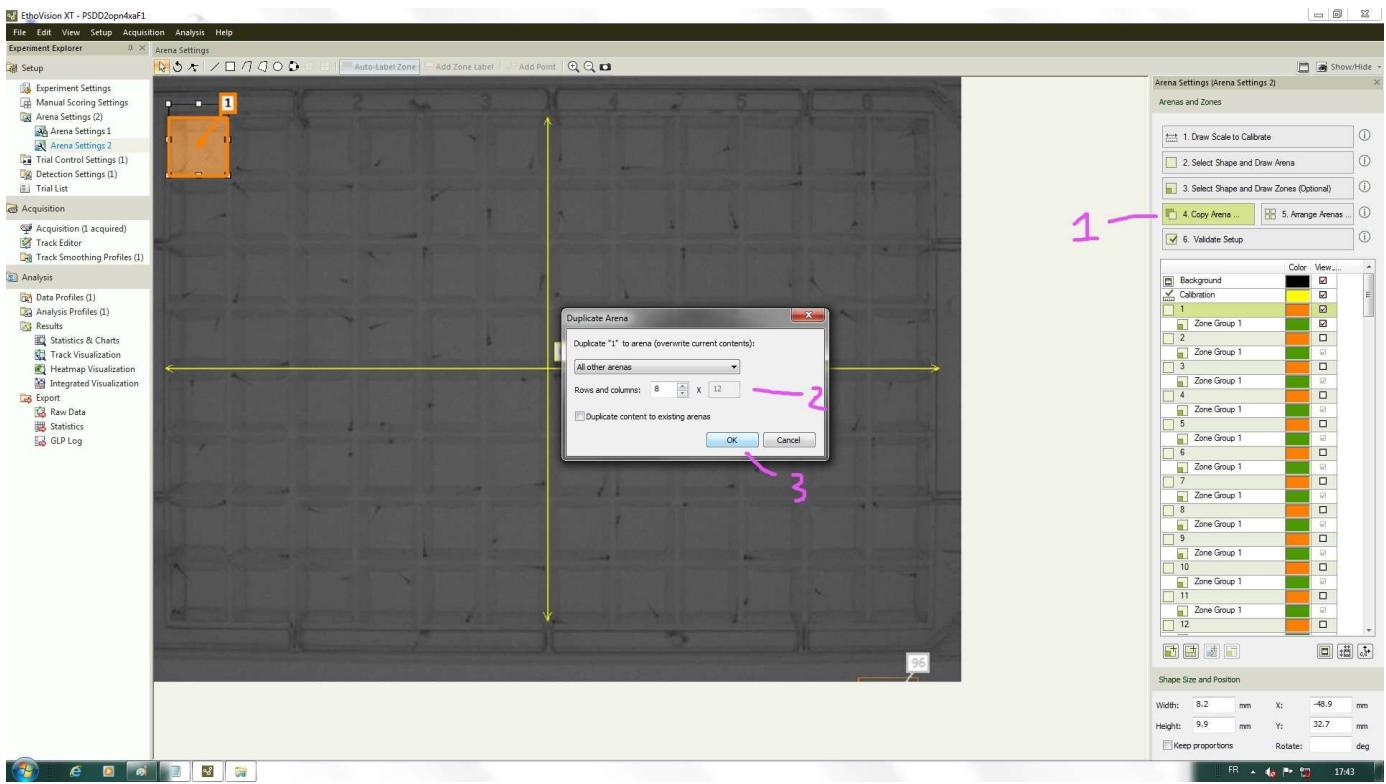




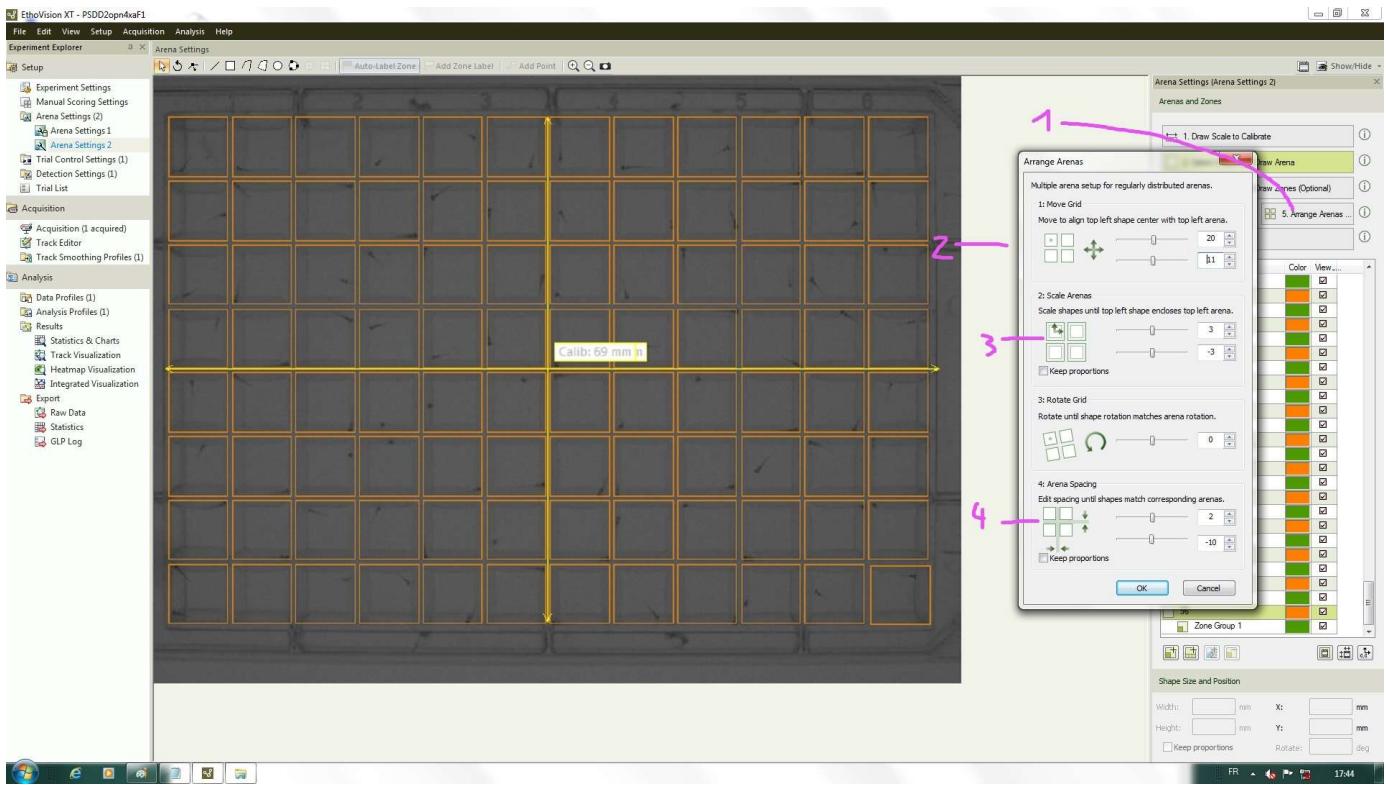
6. Arena Settings : Arenas : Draw the first Arena (each Arena correspond to one larva) : (1) click on Select Shape and Draw Arena , (2) choose your Arena shape, (3) Draw your Arena



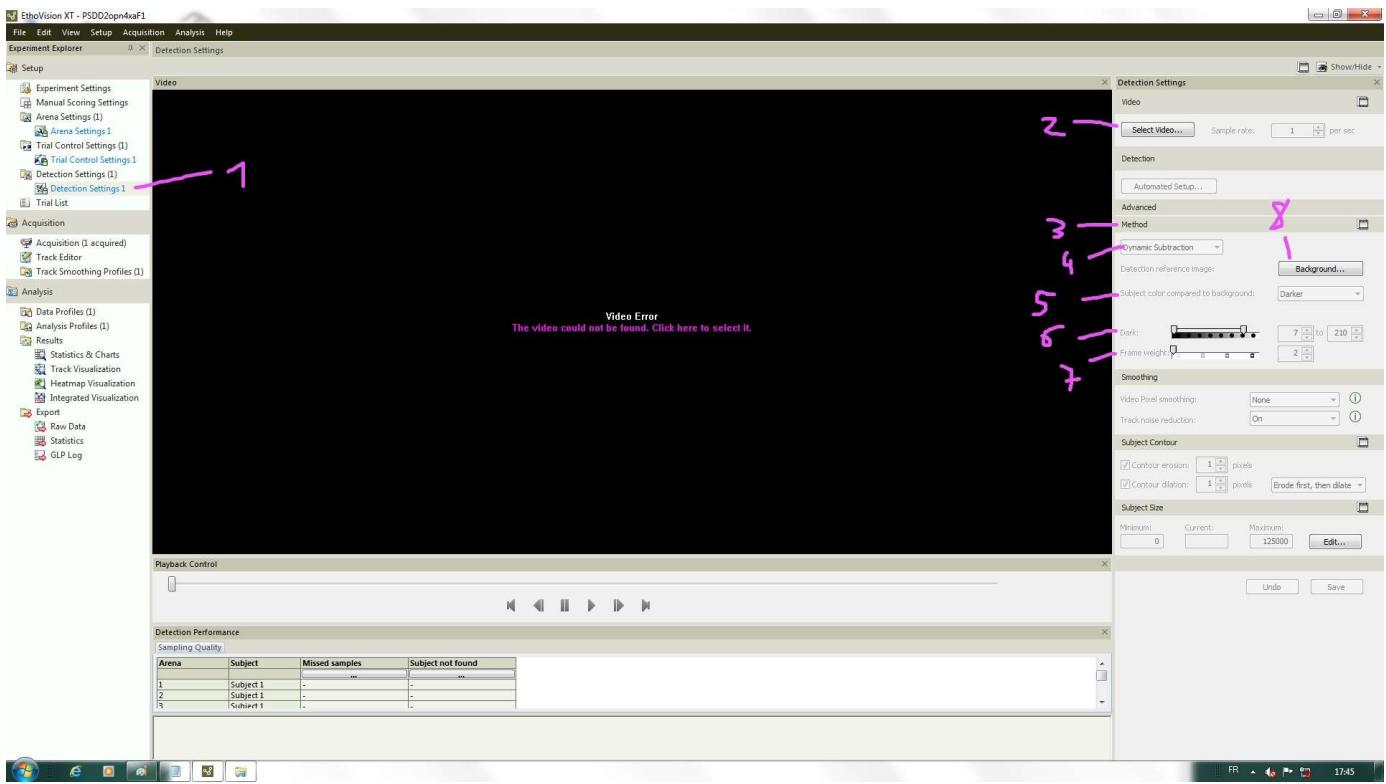
7. Arena Settings : Duplicate Arena : (1) click on Copy Arena , (2-3) choose the correct number of rows and columns



8. Arena Settings : Arrange Arenas : (1) click on Arrange Arenas , (2) arrange the first arena in x and y, (3) arrange the width and length of your arenas, your final arrangement should look like this :



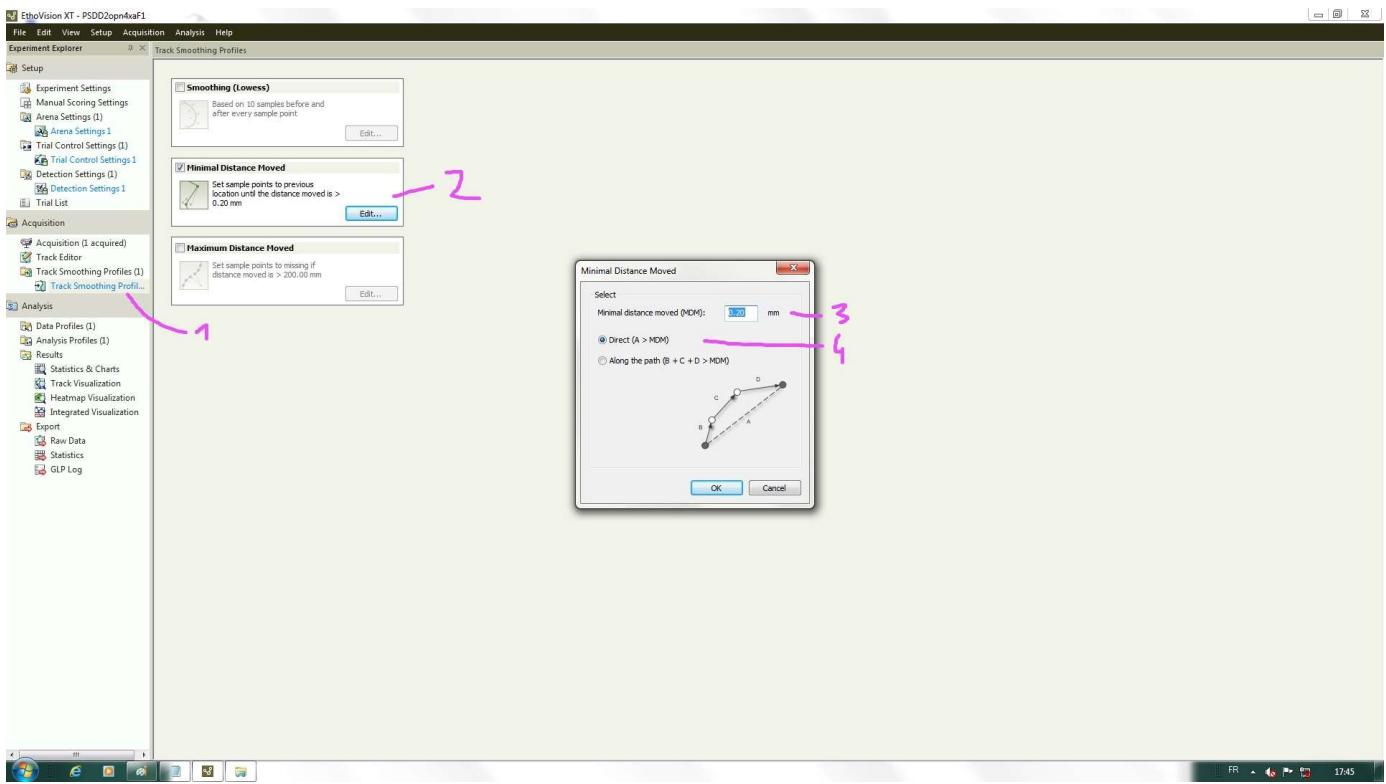
9. Detection Settings : (1) click on Detection Settings , (2) select the first video, (3) click on Method , (4) select Dynamic Subtraction (*examines the absolute contrast between the pixels of a reference image and the newly scanned image, while updating the reference image on each sample ; recommended when there are differences in within the experiment and does not require an image of the behavioural plate without larvae*) , (5) select Darker in Subject color compared to background , (6) put 7 to 210 in Dark (*darkness parameters of the larvae*), (7) put 2 in Frame weight , (8) click on Background and do learning



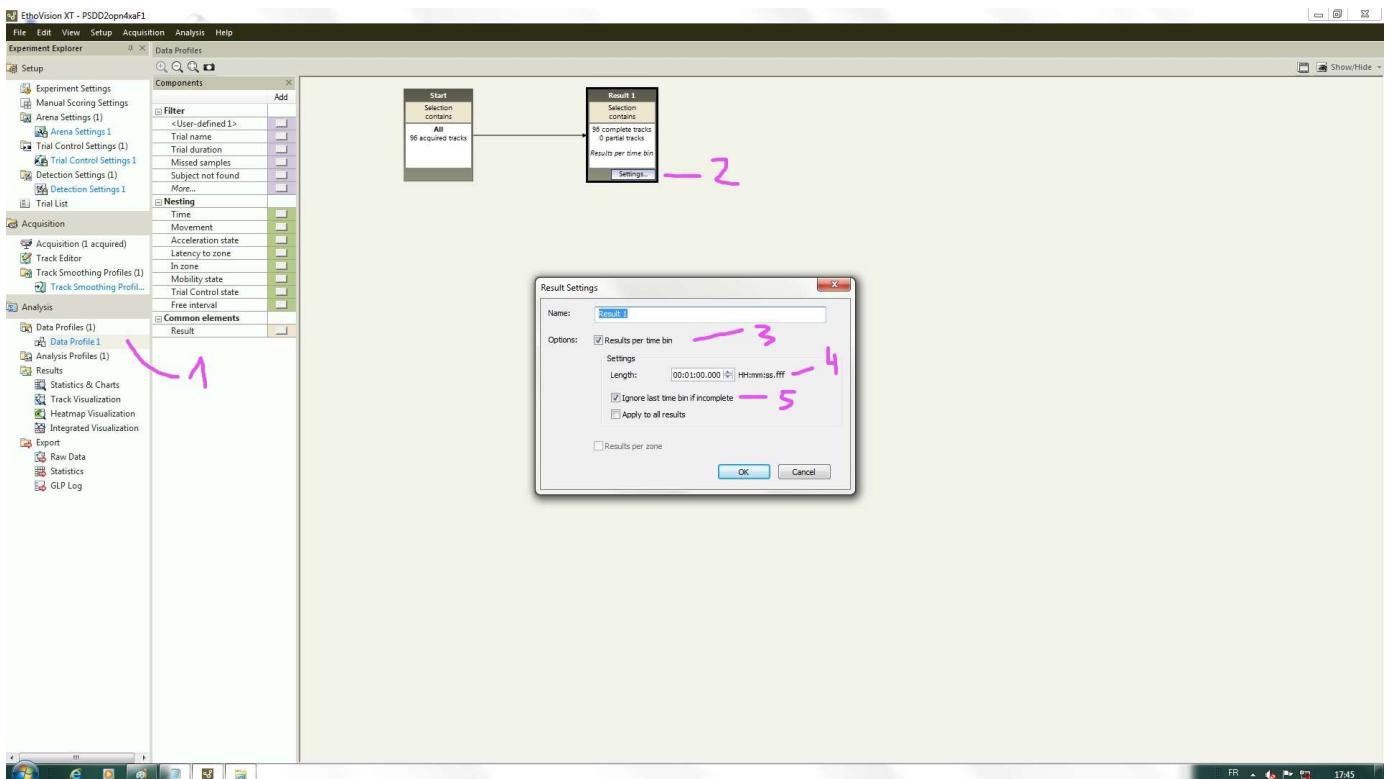
10. Add genotypes : (1) click on Trial List , (2) click on Add Variable , (3) add the correct genotype for each arena/larva (or complete with a random letter like in the example ; you'll need to have a genotype column to process the file in wakefish ; if you have more than two genotypes I would advise you not to put them and instead put the same random letter for each larva because the wakefish program will not be able to process and give you the final excel file containing that many genotypes)

Label	Description	System		System		System		System		User-defined
		Acquisition status	Video file	Arena settings	Trial Control settings	Detection settings	The detection settings used for acquisition			
Type										
Prefixed Values										
Scope										
Trial	Arena	Subject	No.							
1	Subject 1	1	Acquired							b
2	Subject 1	2	Acquired							b
3	Subject 1	3	Acquired							b
4	Subject 1	4	Acquired							b
5	Subject 1	5	Acquired							b
6	Subject 1	6	Acquired							b
7	Subject 1	7	Acquired							b
8	Subject 1	8	Acquired							b
9	Subject 1	9	Acquired							b
10	Subject 1	10	Acquired							b
11	Subject 1	11	Acquired							b
12	Subject 1	12	Acquired							b
13	Subject 1	13	Acquired							b
14	Subject 1	14	Acquired							b
15	Subject 1	15	Acquired							b
16	Subject 1	16	Acquired							b
17	Subject 1	17	Acquired							b
18	Subject 1	18	Acquired							b
19	Subject 1	19	Acquired							b
20	Subject 1	20	Acquired							b
21	Subject 1	21	Acquired							b
22	Subject 1	22	Acquired							b
23	Subject 1	23	Acquired							b
24	Subject 1	24	Acquired							b
25	Subject 1	25	Acquired							b
26	Subject 1	26	Acquired							b
27	Subject 1	27	Acquired							b
28	Subject 1	28	Acquired							b
29	Subject 1	29	Acquired							b
30	Subject 1	30	Acquired							b
31	Subject 1	31	Acquired							b
32	Subject 1	32	Acquired							b
33	Subject 1	33	Acquired							b
34	Subject 1	34	Acquired							b
35	Subject 1	35	Acquired							b
36	Subject 1	36	Acquired							b
37	Subject 1	37	Acquired							b
38	Subject 1	38	Acquired							b
39	Subject 1	39	Acquired							b
40	Subject 1	40	Acquired							b
41	Subject 1	41	Acquired							b
42	Subject 1	42	Acquired							b
43	Subject 1	43	Acquired							b
44	Subject 1	44	Acquired							b
45	Subject 1	45	Acquired							b
46	Subject 1	46	Acquired							b
47	Subject 1	47	Acquired							b
48	Subject 1	48	Acquired							b
49	Subject 1	49	Acquired							b
50	Subject 1	50	Acquired							b
51	Subject 1	51	Acquired							b
52	Subject 1	52	Acquired							b

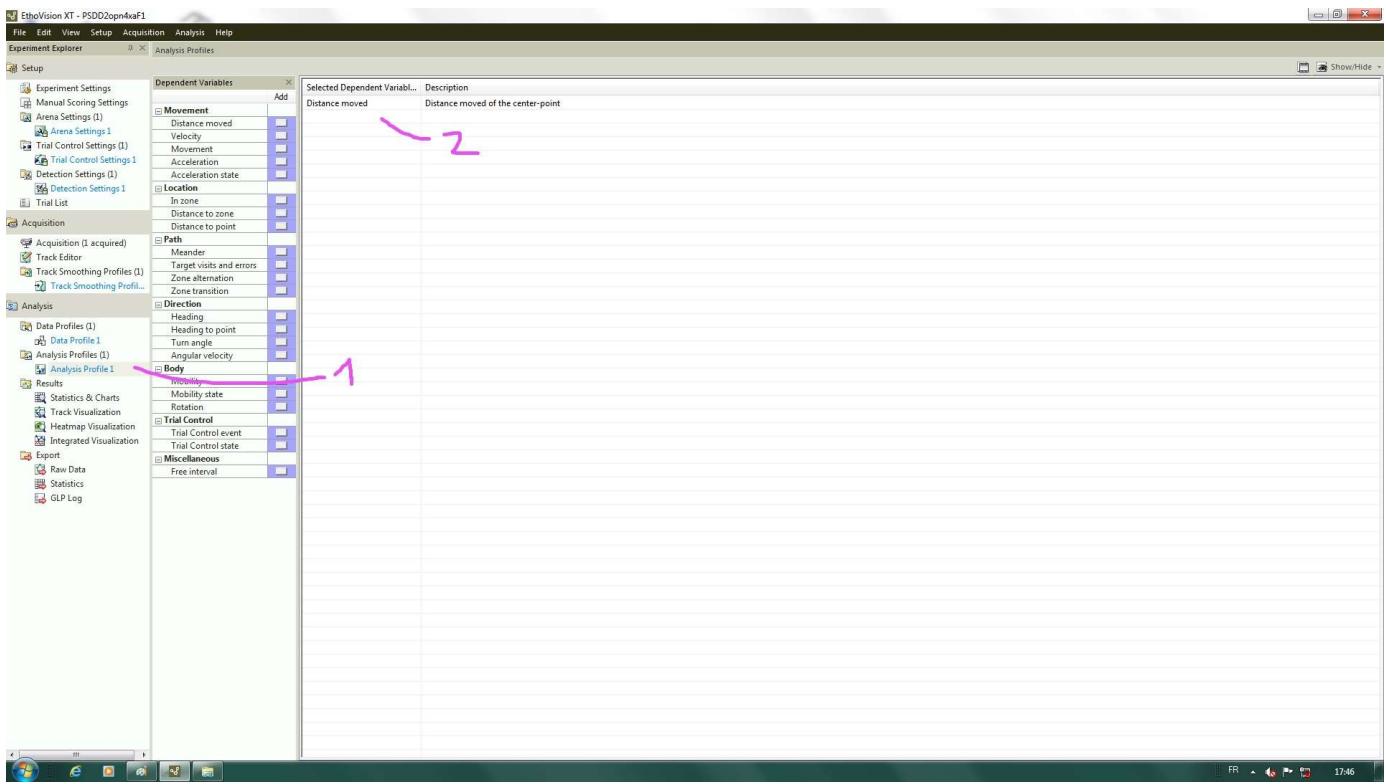
11. Specify the Minimal Distance Moved (MDM) : (1) click on Track Smoothing Profiles , (2) click on Edit in Minimal Distance Moved , (3) specify the MDM (0.2mm, minimal distance to consider that the larva is actually moving), (4) click on Direct (A>MDM)



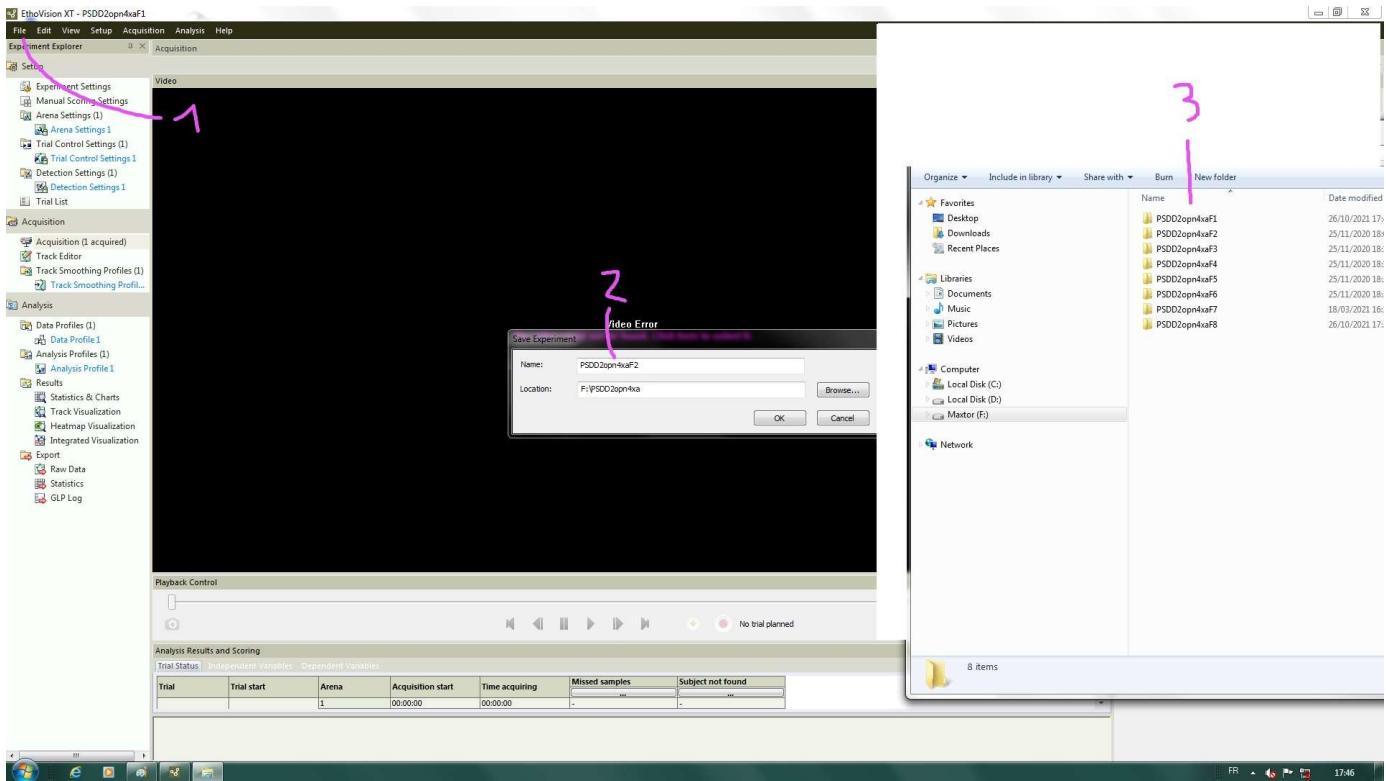
12. Data Profile : (1) click on Data Profile , (2) click on Edit in Settings , (3) click on Results per time bin , (4) for time bins of 1min specify 00:01:00.000 , (5) specify Ignore last time bin if incomplete



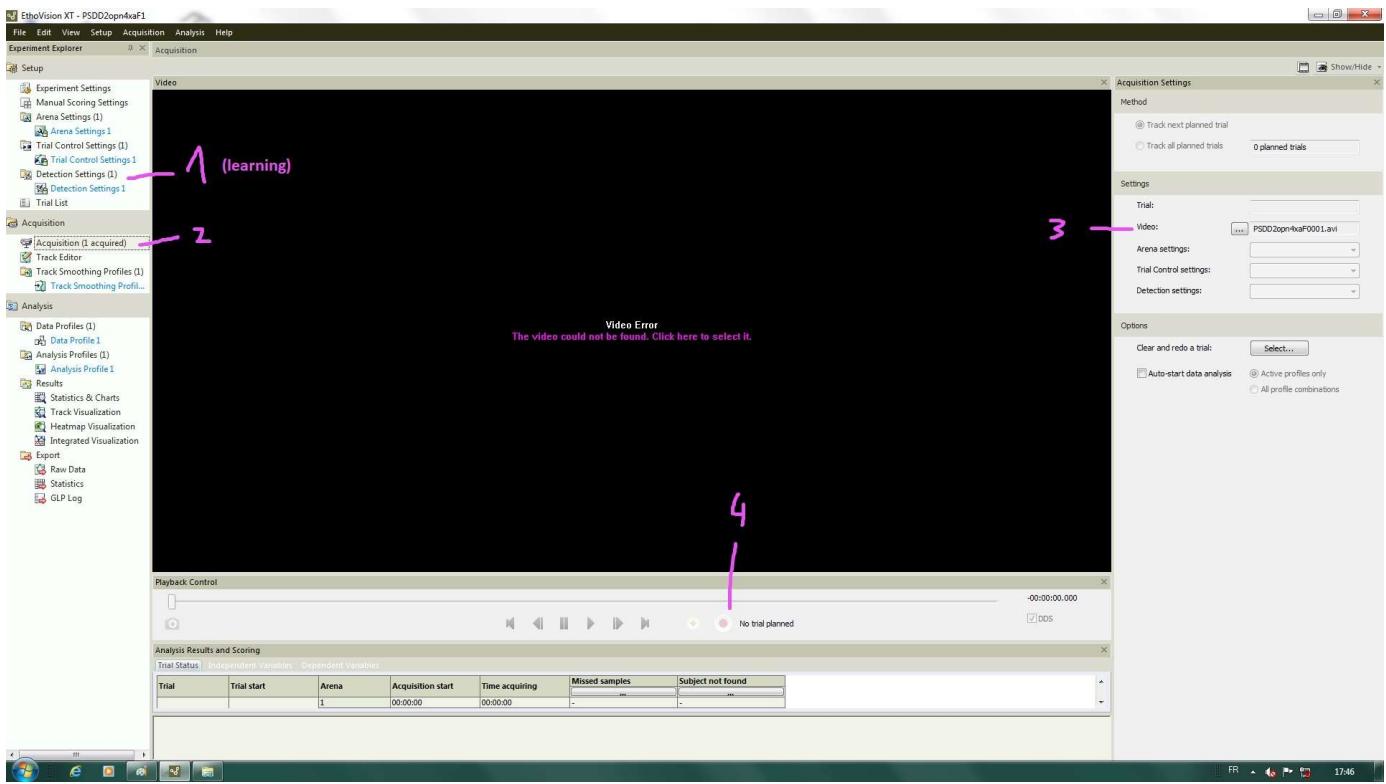
13. Analysis Profile : (1) click on Analysis Profile , (2) select Distance moved to have the distance moved by time bin



14. Keep the same settings for each movie you have : (1) in File , click on Save as , (2) name your file accordingly (here PSDD2opn4xaF2 for the file corresponding to the second movie of the experiment), (3) save as many files as you have movies (for example in the PSDD2opn4xa experiment, I have 8 movies so 8 files)



15. Start the tracking acquisition : (1) in Detection Settings , do the learning on your correct video file (see step 9), (2) click on Acquisition , (3) make sure the correct video is selected, (4) click on the red button to start the Acquisition. Do so for each movie in the corresponding file (takes about 1-2hours for 10-18h movies).



16. Calculate : (1) when the acquisition if finished, click on Statistics and Charts , (2) click on calculate to calculate the distance moved for each minute for each larva based on the tracking (can take several minutes, approximately 15min for one movie with 96 larvae)

		<User-defined 1>	Distance moved center point
			Total mm
		00:00:00.000	87.5914
		00:00:01.000	75.0216
		00:00:02.000	21.4394
		00:00:03.000	1.1657
		00:00:04.000	-
		00:00:05.000	-
		00:00:06.000	-
		00:00:07.000	0.7009
		00:00:08.000	4.7979
		00:00:09.000	-
		00:00:10.000	13.6744
		00:00:11.000	3.3310
		01:00:00.000	-
		01:00:01.000	0.0000
		01:00:02.000	0.0000
		01:00:03.000	0.0000
		01:00:04.000	0.9105
		01:00:05.000	1.4416
		01:00:06.000	0.5311
		01:00:07.000	-
		01:00:08.000	1.8753
		01:00:09.000	0.0000
		01:00:10.000	22.6539
		02:00:00.000	5.1567
		02:00:01.000	5.8725
		02:00:02.000	8.5680
		02:00:03.000	5.1984
		02:00:04.000	5.3231
		02:00:05.000	3.7115
		02:00:06.000	-
		02:00:07.000	12.0267
		02:00:08.000	9.4288
		02:00:09.000	29.3320
		02:00:10.000	16.7582
		03:00:00.000	20.6354
		03:00:01.000	2.4925
		03:00:02.000	7.5720
		03:00:03.000	-
		03:00:04.000	0.0000
		03:00:05.000	6.4502
		03:00:06.000	13.6201
		03:00:07.000	-
		03:00:08.000	11.4651
		03:00:09.000	16.7516
		03:00:10.000	0.6824
		04:00:00.000	-
		04:00:01.000	6.9234
		04:00:02.000	9.8714
		04:00:03.000	-
		04:00:04.000	0.0000
		04:00:05.000	6.7149
		04:00:06.000	6.0122
		04:00:07.000	3.5282
		04:00:08.000	14.8333
		05:00:00.000	5.5705
		05:00:01.000	11.0796
		05:00:02.000	0.0000
		05:00:03.000	0.0000
		05:00:04.000	2.0449
		05:00:05.000	-
		05:00:06.000	0.0000
		05:00:07.000	11.4312

17. Extract the Statistics : (1) in Export , click on statistics , (2) click on Trial statistics to extract the statistics for each larva and not the mean of all the larvae, (3) click on Browse to select the folder to extract the statistics in.

The screenshot shows the EthoVision XT software interface. On the left, the 'Analysis' section is expanded, showing 'Data Profiles (1)', 'Analysis Profile 1', and 'Analysis Profile 1'. The 'Analysis Profile 1' tab is selected. In the center, the 'Trial Statistics' tab is active, displaying a table of data. A pink arrow points from the 'Analysis' menu to the 'Analysis Profile 1' tab. A pink box highlights the 'Export Statistics' dialog box, which is open and set to export 'Trial statistics' to an Excel file. Handwritten numbers '2' and '3' are written above the dialog box.

At the end, you should have as many excel files as movies

18. Align 1min files manually or with R : if you want to align the 1min excel files, you can do it either manually or with R.

19 Align 1 min files with R : go in Y://Clair//for_Elise//align_files and follow the instructions

20.Align 1min files manually : for each of your file this is what you'll have to do (copy and paste them in one final file at the end to align them).

20.a (1) Select the Time column (click on "D"), **(2)** click on Rechercher et selectionner and remplacer , **(3)** in Rechercher put Start , **(4)** in Remplacer par put 0:00:00 , **(5)** click on Remplacer tout **(6)** click on ok

The screenshot shows a Microsoft Excel spreadsheet titled 'Statistics-PSDD2opn4kaF2 - Excel'. The data consists of trials and their statistics. A pink box highlights the 'D' column header. A pink arrow labeled '1' points to the 'D' column. A pink box highlights the 'Replace' dialog box, which is open with 'Start' in the 'Find what:' field and '0:00:00' in the 'Replace with:' field. Handwritten numbers '3', '4', '5', and '6' are written around the dialog box. A pink arrow labeled '2' points to the 'OK' button of the dialog box. Another pink arrow labeled '2' points to the 'OK' button of a confirmation message box.

20.b (1) Select the Distance moved column (click on "F"), **(2)** click on Rechercher et selectionner and remplacer , **(3)** in Rechercher put - , **(4)** in Remplacer par put 0 , **(5)** click on Remplacer tout **(6)** click on ok

1

2

3

4

5

6

	Arena	Time	Distance moved
Result 1	Trial 1	0:00:00-0:b	22,7499
Result 1	Trial 1	0:01:00-0:b	15,2174
Result 1	Trial 1	0:02:00-0:b	4,87025
Result 1	Trial 1	0:03:00-0:b	28,6407
Result 1	Trial 1	0:04:00-0:b	22,8341
Result 1	Trial 1	0:05:00-0:b	10,3618
Result 1	Trial 1	0:06:00-0:b	19,2448
Result 1	Trial 1	0:07:00-0:b	36,8719
Result 1	Trial 1	0:08:00-0:b	47,0379
Result 1	Trial 1	0:09:00-0:b	0,465868
Result 1	Trial 1	0:10:00-0:b	0
Result 1	Trial 1	0:11:00-0:b	0
Result 1	Trial 1	0:12:00-0:b	0,505518
Result 1	Trial 1	0:13:00-0:b	14,9126
Result 1	Trial 1	0:14:00-0:b	1,88211
Result 1	Trial 1	0:15:00-0:b	9,6847
Result 1	Trial 1	0:16:00-0:b	15,3104
Result 1	Trial 1	0:17:00-0:b	26,0279
Result 1	Trial 1	0:18:00-0:b	15,8925
Result 1	Trial 1	0:19:00-0:b	6,88316
Result 1	Trial 1	0:20:00-0:b	17,1249
Result 1	Trial 1	0:21:00-0:b	24,6118
Result 1	Trial 1	0:22:00-0:b	13,5842
Result 1	Trial 1	0:23:00-0:b	6,61439
Result 1	Trial 1	0:24:00-0:b	0,886459
Result 1	Trial 1	0:25:00-0:b	8,67089
Result 1	Trial 1	0:26:00-0:b	12,6492
Result 1	Trial 1	0:27:00-0:b	20,7154
Result 1	Trial 1	0:28:00-0:b	25,9378
Result 1	Trial 1	0:29:00-0:b	11,3959
Result 1	Trial 1	0:30:00-0:b	30,8727
Result 1	Trial 1	0:31:00-0:b	42,3183
Result 1	Trial 1	0:32:00-0:b	18,9571
Result 1	Trial 1	0:33:00-0:b	73,6421

20.c (1) put a name for the Arena column, (2) put a name for the Time column, (3) select the three empty rows, (4) delete these rows (right click and click on Supprimer)

1

2

3

4

	Arena	Time	Distance moved
Result 1	Trial 1	0:00:00-0:b	22,7499
Result 1	Trial 1	0:01:00-0:b	15,2174
Result 1	Trial 1	0:02:00-0:b	4,87025
Result 1	Trial 1	0:03:00-0:b	28,6407
Result 1	Trial 1	0:04:00-0:b	22,8341
Result 1	Trial 1	0:05:00-0:b	10,3618
Result 1	Trial 1	0:06:00-0:b	19,2448
Result 1	Trial 1	0:07:00-0:b	36,8719
Result 1	Trial 1	0:08:00-0:b	47,0379
Result 1	Trial 1	0:09:00-0:b	0,465868
Result 1	Trial 1	0:10:00-0:b	0
Result 1	Trial 1	0:11:00-0:b	0
Result 1	Trial 1	0:12:00-0:b	0,505518
Result 1	Trial 1	0:13:00-0:b	14,9126
Result 1	Trial 1	0:14:00-0:b	1,88211
Result 1	Trial 1	0:15:00-0:b	9,6847
Result 1	Trial 1	0:16:00-0:b	15,3104
Result 1	Trial 1	0:17:00-0:b	26,0279
Result 1	Trial 1	0:18:00-0:b	15,8925
Result 1	Trial 1	0:19:00-0:b	6,88316
Result 1	Trial 1	0:20:00-0:b	17,1249
Result 1	Trial 1	0:21:00-0:b	24,6118
Result 1	Trial 1	0:22:00-0:b	13,5842
Result 1	Trial 1	0:23:00-0:b	6,61439
Result 1	Trial 1	0:24:00-0:b	0,886459
Result 1	Trial 1	0:25:00-0:b	8,67089
Result 1	Trial 1	0:26:00-0:b	12,6492
Result 1	Trial 1	0:27:00-0:b	20,7154
Result 1	Trial 1	0:28:00-0:b	25,9378
Result 1	Trial 1	0:29:00-0:b	11,3959
Result 1	Trial 1	0:30:00-0:b	30,8727
Result 1	Trial 1	0:31:00-0:b	42,3183
Result 1	Trial 1	0:32:00-0:b	18,9571
Result 1	Trial 1	0:33:00-0:b	73,6421

20.d (1) click on Insertion , (2) select the Arena, Time, Genotype and Distance moved columns, (3) click on Tableau croise dynamique

	A	B	C	D	E	F	G	H
1			are	t	Independ	Distance	removed	
2	Result 1	Trial 1	1	0:00:00-0:b		22,7499		
3	Result 1	Trial 1	1	0:01:00-0:b		15,2174		
4	Result 1	Trial 1	1	0:02:00-0:b		4,87025		
5	Result 1	Trial 1	1	0:03:00-0:b		28,6407		
6	Result 1	Trial 1	1	0:04:00-0:b		22,8341		
7	Result 1	Trial 1	1	0:05:00-0:b		10,3618		
8	Result 1	Trial 1	1	0:06:00-0:b		19,2448		
9	Result 1	Trial 1	1	0:07:00-0:b		36,8719		
10	Result 1	Trial 1	1	0:08:00-0:b		47,0379		
11	Result 1	Trial 1	1	0:09:00-0:b		0,465868		
12	Result 1	Trial 1	1	0:10:00-0:b		0		
13	Result 1	Trial 1	1	0:11:00-0:b		0		
14	Result 1	Trial 1	1	0:12:00-0:b		0,505518		

20.e (1) click on Feuille de calcul existante if you want to put your tableau dynamique in the same sheet or on nouvelle feuille de calcul if you want to put it in a new sheet, **(2)** select where you want to put your tableau croise dynamique, **(3)** click on ok

Screenshot of Microsoft Excel showing the creation of a dynamic pivot table. The ribbon tabs are visible at the top, and the 'Tableau croisé dynamique' (Pivot Table) icon is selected in the 'Accueil' tab's 'Tables' group. A data table titled 'Analysis' is displayed in the worksheet, containing 29 rows of data with columns for Trial, Time, and Distance moved. A pink arrow labeled '1' points from the 'Tableau croisé dynamique' icon to the 'Analysis!S5:SF' input field in the 'Créer un tableau croisé dynamique' dialog box. Another pink arrow labeled '2' points from the 'OK' button to the bottom right of the dialog box. A third pink arrow labeled '3' points from the 'OK' button to the bottom right of the dialog box.

20.f (1) put the Arena column in COLONNES , (2) put the Time column in LIGNES , (3) put the Distance moved in VALEURS and (4) select Moyenne if you have only 1 appearing in your tableau. If you have genotypes put it in FILTRES .

20.g Copy and paste the part of the tableau that interest you

Fichier Accueil Insertion Mise en page Formules Données Révision Affichage Développeur Dites-nous ce que vous voulez faire.

Calibri 11 A Renvoyer à la ligne automatiquement Standard Normal Insatisfaisant Somme automatique A Z

Coller Copier Reproduire la mise en forme

Police Alignement Nombre Style

Prése-papiers

Mise en forme conditionnelle Mettre sous forme de tableau

Insérer Supprimer Format Remplissage Trier et Rechercher et filtrez sélectionner

Effacer Édition

A1 Étiquettes de lignes

1 étiquettes d'1

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	9	3
2	0	0,000-0,01:	22,7499	2,64521	19,3244	4,97093	25,9932	45,6755	6,33143	62,9398	3,55497	4,8328	57,0251	53,1166	7,72015	12,7602	15,6765	14,3453	60,9902	15,0536	11,4518	26,2327	24,734	2,21549	
3	0	0,01-0,02:	15,2174	45,2383	11,4697	16,2246	10,1226	59,0413	4,80153	51,1068	2,2198	0	45,0474	51,7084	6,61904	10,0551	20,0392	15,1293	67,352	4,94095	8,77766	31,7097	24,4333	0	
4	0	0,02-0,03:	4,87025	6,78707	8,14967	16,7757	4,29663	19,2824	7,71231	54,2522	30,2537	2,80651	26,3193	51,432	13,0407	27,0989	13,8955	5,11287	11,778	28,4621	2,96434	26,3824	6,0297	10,5209	
5	0	0,03-0,04:	28,6407	37,5104	10,1824	6,68977	24,1237	34,4748	3,7839	53,6327	0	50,05209	53,1347	54,195	0	15,2782	16,9874	13,0151	31,9479	4,71042	1,0512	49,5037	1,18099	29,4509	
6	0	0,04-0,05:	28,8341	60,9598	17,4505	21,0755	7,3851	77,1039	15,3778	63,7161	0	9,8359	48,1193	75,0063	1,12915	7,45268	2,77413	15,2398	5,90239	0,227149	13,4384	41,3149	20,0776	0	
7	0	0,05-0,06:	10,3618	46,429	17,4488	0	21,198	38,5124	17,7263	71,7339	0	2,73223	47,761	51,5421	26,2195	15,3714	34,8302	11,7025	8,3369	0,654799	48,5867	25,8076	11,5354	0	
8	0	0,06-0,07:	19,2448	51,1671	17,9754	1,91931	15,0457	76,5625	29,3291	58,7735	12,3572	12,8822	51,2991	35,8278	23,4123	4,52153	8,84197	11,3238	10,6124	1,35101	6,25624	43,6284	10,2199	0	
9	0	0,07-0,08:	36,8719	79,1526	3,26885	28,9401	0,442716	69,0507	42,0182	76,7092	37,4807	0,430464	45,0995	55,184	40,7257	16,0609	16,4597	10,5555	6,68194	1,67411	25,6064	29,1063	4,30594	23,4855	
10	0	0,08-0,09:	47,0379	28,9511	13,5805	8,883751	0,420871	64,8063	30,6293	84,7529	22,8895	6,69806	71,8252	56,9895	14,8963	6,38649	13,556	14,4857	2,17374	4,20866	3,67284	35,4833	48,4159	2,82841	
11	0	0,09-0,10:	45,65686	15,914	5,78034	3,20695	2,96239	62,7151	37,9354	68,8359	29,8441	1,04985	64,9997	1,07889	41,3694	4,93446	13,82	15,4668	6,72566	1,5487	15,4992	31,3158	13,0696	12,2684	
12	0	0,10-0,11:	0	37,8293	1,4964	4,67018	7,2556	52,306	69,5657	64,2262	51,046	14,1123	64,8246	0	49,4685	5,77605	15,901	19,6477	12,6052	5,03676	12,2542	20,6766	17,7774	1,29494	
13	0	0,11-0,12:	0	58,8173	5,68558	16,945	11,2943	85,1078	49,8677	80,9249	48,2888	5,88619	74,4701	0	40,1699	14,1967	15,6126	12,1115	2,58717	15,0628	13,8244	40,7558	3,17483	5,75852	
14	0	0,12-0,13:	0,505518	97,4674	8,94889	17,9303	22,7918	48,0418	67,8387	71,0064	69,9137	20,7076	58,4686	0	29,9135	20,3412	17,0654	7,65837	1,30137	16,7522	1,06649	31,5337	0		
15	0	0,13-0,14:	14,9126	72,7809	4,92722	0	8,09176	69,2018	83,7186	55,4455	44,0793	0	45,7362	0	27,8169	15,3902	2,99729	20,7371	1,60304	9,28856	0,85931	16,312	5,48931	32,9082	
16	0	0,14-0,15:	1,88111	47,2103	10,0994	5,595633	15,2852	41,4992	71,1557	38,578	60,5445	17,5697	46,7461	0	18,8137	11,6582	1,88087	4,46433	2,91279	15,084	10,5979	24,3425	3,52139	27,3839	
17	0	0,15-0,16:	9,6847	57,3702	15,1103	10,0662	4,8569	37,5212	94,4102	75,4493	62,1162	23,9126	53,4874	0	28,638	12,6743	7,48874	6,17232	8,10932	24,2645	21,374	12,1946	10,8582	4,34627	
18	0	0,16-0,17:	15,3104	64,5106	17,8527	0	2,9842	50,7348	94,3353	56,7332	51,8142	24,6662	46,9673	4,67242	8,46809	5,94776	7,8011	2,0399	10,5986	23,3516	1,54291	26,1542	5,68666	5,64652	
19	0	0,17-0,18:	26,0279	48,4776	10,1162	0	9,77085	74,3479	70,0599	50,1067	58,6033	0	47,5863	5,82882	17,3712	9,32214	6,25424	3,36878	13,8252	12,8362	4,24401	12,4217	2,26179	7,185	
20	0	0,18-0,19:	15,8925	47,372	18,0836	8,86784	6,05011	48,4124	48,9942	57,6491	29,425	0	38,7099	2,90249	9,35064	4,76817	4,92186	11,3411	12,0765	17,6126	0,419058	8,36445	7,98666	9,73696	
21	0	0,19-0,20:	6,88316	36,8217	4,38755	7,24736	37,8849	58,2324	43,2414	78,6295	36,4314	0	14,87	0	27,4989	13,0034	3,57298	23,5226	0,977024	1,80835	8,82578	11,3394	4,49449	4,252538	
22	0	0,20-0,21:	17,1249	43,7372	3,02436	4,7965	0,822563	53,4521	43,2893	54,575	48,9428	8,96626	55,0625	0	16,9534	4,26417	7,68537	19,352	0	17,809	1,48774	16,49393	9,24095	0,5176	
23	0	0,21-0,22:	24,6118	36,5218	10,888	16,2831	21,8319	41,2193	39,509	67,655	52,6373	11,9361	30,499	15,4062	53,919	15,250	5,28531	10,5999	0	6,93333	2,02674	15,9848	21,164	21,45937	
24	0	0,22-0,23:	13,8452	7,48025	2,30611	15,1121	21,118	58,1324	45,7297	70,4078	35,1604	16,5905	24,8777	4,50158	16,5359	5,48571	33,4558	10,0788	0	0	0,218376	14,584	9,69637	3,88691	
25	0	0,23-0,24:	6,61439	83,5942	33,8944	18,6234	1,12319	36,0558	42,1448	65,1122	70,4067	8,08536	45,5472	4,54956	9,34997	6,07826	5,58883	44,6337	12,7612	11,2232	6,16922	10,5504	23,0581	6,536	
26	0	0,24-0,25:	0,886459	9,04866	6,35929	26,0911	0,251902	38,0393	60,7578	57,8495	38,6272	7,54811	6,50308	46,2738	9,93062	30,6291	13,9897	6,07632	8,27296	2,14615	7,13999	0	0		
27	0	0,25-0,26:	8,67089	34,1264	1,92713	18,9413	0,200417	55,0736	41,7596	91,4958	94,8098	44,7259	53,6093	0	33,2867	7,21715	5,99523	17,0019	5,2533	24,2519	29,8271	13,2852	8,61339	0,304948	
28	0	0,26-0,27:	12,6492	91,4664	17,96	89,2391	0,75224	71,2384	23,09	53,8648	50,903	87,6114	58,5967	12,4797	27,799	11,2039	12,2053	61,0122	2,7372	3,05938	18,7881	7,02221	13,0375	0,37972	
29	0	0,27-0,28:	20,1754	63,3227	24,8196	58,2674	12,047	55,4481	34,2858	56,4944	55,3782	63,7374	42,6938	23,3657	28,5534	9,71459	4,11203	9,14209	11,31604	10,531	18,804	18,5267	0		
30	0	0,28-0,29:	25,9378	78,5319	4,79572	50,4176	4,60295	64,331	47,8458	39,0471	61,1243	61,4502	58,0843	11,856	45,1057	7,49577	28,0286	28,9783	7,50329	8,70257	17,01313	4,17865	5,75941		
31	0	0,29-0,30:	11,3959	101,6122	5,68735	27,252	40,6582	68,0041	11,6395	60,1111	56,8934	83,7179	66,3924	45,1645	35,4724	15,4509	17,1917	43,2681	0	18,7532	0,884003	22,9053	10,5528	1,78485	
32	0	0,30-0,31:	30,8727	100,4664	4,94101	40,9344	13,9176	64,5288	19,016	62,4002	53,7322	67,1689	10,4493	61,2469	19,900	14,2835	18,5254	20,0657	0	13,9105	34,0469	12,3268	2,57561	21,3402	
33	0	0,31-0,32:	4,23183	112,1154	0	6,33337	6,3789	54,37	44,6511	76,1609	71,0357	76,1428	33,3366	56,9605	18,0131	11,9921	12,9857	38,003	0	30,4812	12,1801	12,5776	9,92763	30,9494	
34	0	0,32-0,33:	18,5571	76,1526	11,7185	21,8282	3,27712	38,1538	58,2486	48,1148	24,7161	57,1553	10,1392	66,8599	5,96648	6,70003	15,7539	5,04331	0	5,92859	11,192	4,75214	2,11626	0,497364	
35	0	0,33-0,34:	7,34241	69,3583	8,25884	21,0232	14,028	60,2872	3,32322	60,4948	32,1646	90,8495	12,8393	68,2794	6,61378	11,5559	10,4556	17,3138	0	18,2577	0,510943	14,81515	5,78728	6,40353	
36	0	0,34-0,35:	134,424	67,2096	11,5393	21,1997	6,05935	30,8419	43,3232	45,1511	54,2738	43,6532	8,03356	76,6564	6,3463	7,2046	17,349	7,5763	13,0292	4,532	4,97946	18,4464	0		
37	0	0,35-0,36:	93,0314	108,957	0	46,1276	32,2433	48,0526	65,554	70,5219	55,8162	63,3799	18,7833	89,3879	4,35218	2,53342	19,1565	77,8164	7,07406	7,18809	13,4201	3,98019	16,2532		
38	0	0,36-0,37:	100,874	47,1513	0	0,207624	62,8223	24,6607	50,6439	58,4507	43,3184	45,789	66,3502	20,8816	103,263	1,78188	12,4685	14,5751	1,16493	18,9179	14,2867	14,8046	25,6011		

20.h Beware, if you have times over 10:00:00, it will be put between 1:59:00 and 2:00:00 times. You'll have to copy and paste it in the right place. Do the same for all your files and align them on a final file.

The screenshot shows a Microsoft Excel spreadsheet titled "Feuil1". The data consists of 149 rows and 9 columns. The columns are labeled A through I. The first column (A) contains time intervals like "1:50:00-1:51:", "1:51:00-1:52:", etc. The second column (B) contains numerical values such as 5,94425, 5,8289, 6,52068, etc. The remaining columns (C-I) contain various numerical data points. A pink circle highlights the first two columns (A and B) from row 22 down to row 149. The status bar at the bottom shows "Taper ici pour rechercher".

	A	B	C	D	E	F	G	H	I
112	1:50:00-1:51:	5,94425	12,7199	10,5281	1,46911	5,66666	53,9944	0	76,370
113	1:51:00-1:52:	5,8289	11,2789	6,32166	7,98871	16,4619	59,5709	9,02249	50,887
114	1:52:00-1:53:	6,52068	3,33873	9,46957	3,03146	4,0383	55,6617	2,2089	55,933
115	1:53:00-1:54:	0,860802	5,66386	15,4205	1,8461	9,73084	52,5464	9,6591	49,756
116	1:54:00-1:55:	4,22009	6,33588	12,0882	0	9,31064	57,6046	14,1906	45,445
117	1:55:00-1:56:	0	4,88841	8,64523	1,2732	6,08849	54,8494	20,7641	40,982
118	1:56:00-1:57:	1,14501	13,5556	12,7594	13,3794	1,79917	56,4799	14,0852	53,121
119	1:57:00-1:58:	0,780397	17,9255	0,440198	7,65306	21,442	51,7866	27,4671	54,943
120	1:58:00-1:59:	3,4986	6,22823	3,75076	12,3863	19,7079	53,0854	40,0534	58,925
121	1:59:00-2:00:	14,2266	5,58462	6,39492	5,19027	22,9181	69,4581	43,258	62,655
22	10:00:00-10:01	0	0	8,83196	3,98447	31,5221	0	20,7356	55,544
23	10:01:00-10:02	9,32832	0	4,95112	8,49396	25,8457	0	14,1012	54,338
24	10:02:00-10:03	8,77964	0	0	9,86223	2,97692	0	7,35645	45,075
25	10:03:00-10:04	19,7131	0,490892	0	0	2,79749	0	4,34511	40,591
26	10:04:00-10:05	25,7434	0,273527	0	0	5,02496	0	8,36432	51,906
27	10:05:00-10:06	0	1,0502	0	0,303498	4,19504	0	3,21913	52,724
28	10:06:00-10:07	2,3654	0	8,1188	9,88526	1,13787	0	7,14056	43,399
29	10:07:00-10:08	3,85844	0	4,57719	0	1,15108	11,3515	12,1923	52,577
30	10:08:00-10:09	2,17794	2,79499	20,1028	1,21399	2,70031	0	20,3429	53,851
31	10:09:00-10:10	33,2163	0	6,43367	6,40327	4,73244	0	12,6486	23,466
32	10:10:00-10:11	8,90509	0,624114	2,22087	0	5,13098	0	9,0738	24,369
33	10:11:00-10:12	2,62081	0,217344	3,00717	21,6993	3,62343	0	12,2621	32,571
34	10:12:00-10:13	25,6873	2,2793	5,0961	12,7564	5,40058	0	5,67129	38,161
35	10:13:00-10:14	8,12834	4,20997	12,6393	1,94841	4,11855	0	3,68052	28,030
36	10:14:00-10:15	2,07195	1,92518	11,695	15,0418	0,649979	0	2,80381	22,269
37	10:15:00-10:16	2,72146	2,95381	24,5744	14,3391	0	0	6,43948	1
38	10:16:00-10:17	0	5,5983	11,0229	0	6,04841	0	3,22656	1
39	10:17:00-10:18	0,339321	5,28243	2,23816	0	2,44973	0	1,81682	1
40	10:18:00-10:19	0	7,41306	14,2845	0	7,35962	0	2,64112	1
41	10:19:00-10:20	0	7,4372	23,0746	10,0399	8,05955	0	3,71884	1
42	10:20:00-10:21	0	2,92381	18,5533	26,2277	3,74338	0	0,910493	1
43	10:21:00-10:22	0	4,61015	0	6,28966	12,9926	0	1,4003	1
44	10:22:00-10:23	0	1,14159	0	5,47136	6,23514	0	5,15008	1
45	10:23:00-10:24	13,7759	1,07359	0	7,84057	13,8327	0	2,30825	1
46	10:24:00-10:25	0	5,017	0	10,3901	19,7153	0	0,201248	1
47	10:25:00-10:26	0	6,81892	0	16,6722	21,4781	0	0,455246	1
48	10:26:00-10:27	0	3,97492	0	5,89669	20,2147	0	12,3004	1
49	10:27:00-10:28	4,83127	3,96301	0	0	4,10647	0	3,75147	1

3. Issues I had in the past

It sometimes happened to me that the last excel file (F8 file) had issues and could not be opened even if nothing particular happened during its processing with the Noldus. When that happened, it was then impossible to open the F8 Noldus file anymore. I resolved this problem by creating from the very beginning an extra Noldus file (step 14, do 9 Noldus files instead of 8) and it was then ok. I don't know why this problem happened.