

# Guide to Transponder Timing with RaceResult and BEM

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This document is a guide to setting up the race|result Connector program using the race|result System 5000 Decoder to interface the Bmx Event Manager (BEM) and BemTrain programs. This document should be read in conjunction with the respective Connector and BEM User Guides.

Note that at the time this document was created, testing has not been done with the race|result USB Timing Box.

This document should be read in conjunction with and is not intended to replace the BEM, BemTrain or race|result Operator Guides.

Screen shots are taken from BEM version 3.8.14, BemTrain version 2.2.2 and race|result Connector version 1.0.19.

To obtain the latest versions of the software:

race|result Connector: <https://www.raceresult.com/en-au/software/download.php>

BEM and BemTrain: <http://www.bmxsportswa.com.au/clubs-resources/scoring/>

The assumed configuration in this guide is the decoder connected via a local LAN, with an active extension used for the Finish Line and a Loop Box used for the bottom of the Start Hill loop and Start Gate signal.

## Contents

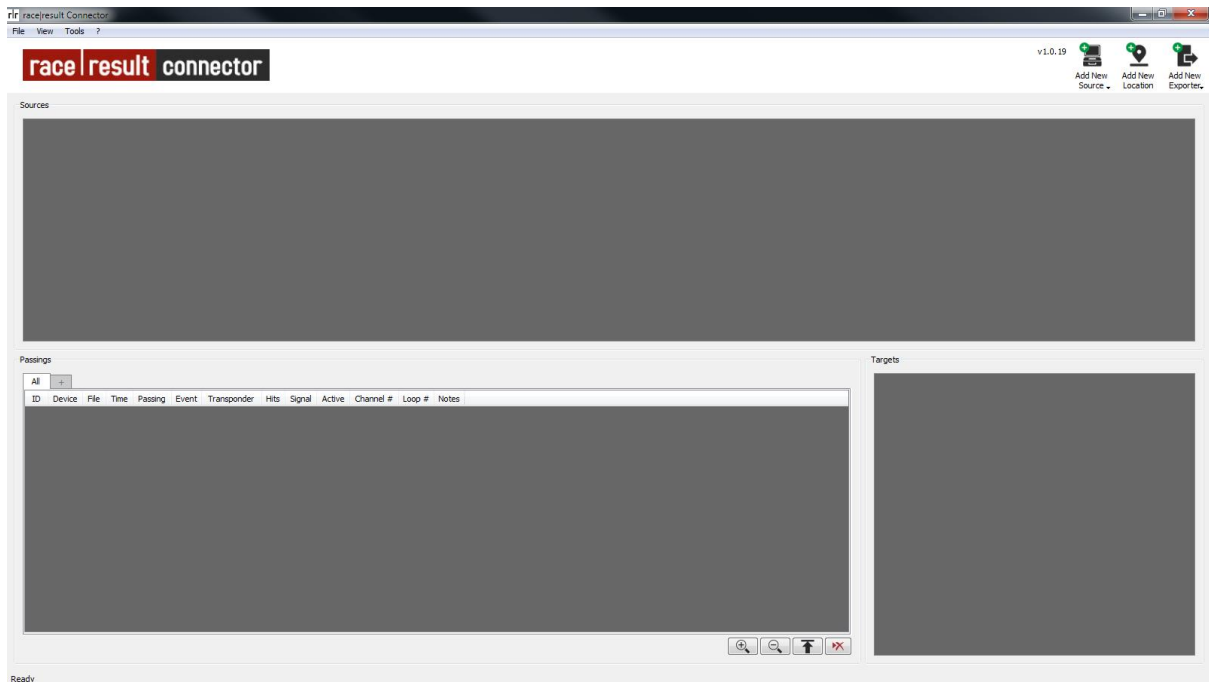
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## Start the Decoder

1. Power on the decoder.
2. Set the Chanel and Loop IDs on any active loop box(es) being used.  
E.g. Bottom of Hill loop set to Channel 1, Loop 2.
3. If capturing the Start Gate pulses via the 3.5mm jack on a Loop Box, set the mode in that box to Impulse.
4. Set the decoder time to GPS time so that TOD will be reported in the passing records.
5. Press the decoder Start button.

## Run race|result connector

At start up the following screen is displayed.



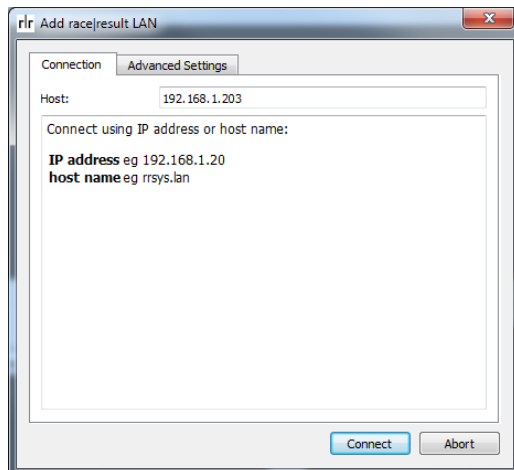
## Connect to the decoder

To establish the connection from race|result Connector to the decoder:

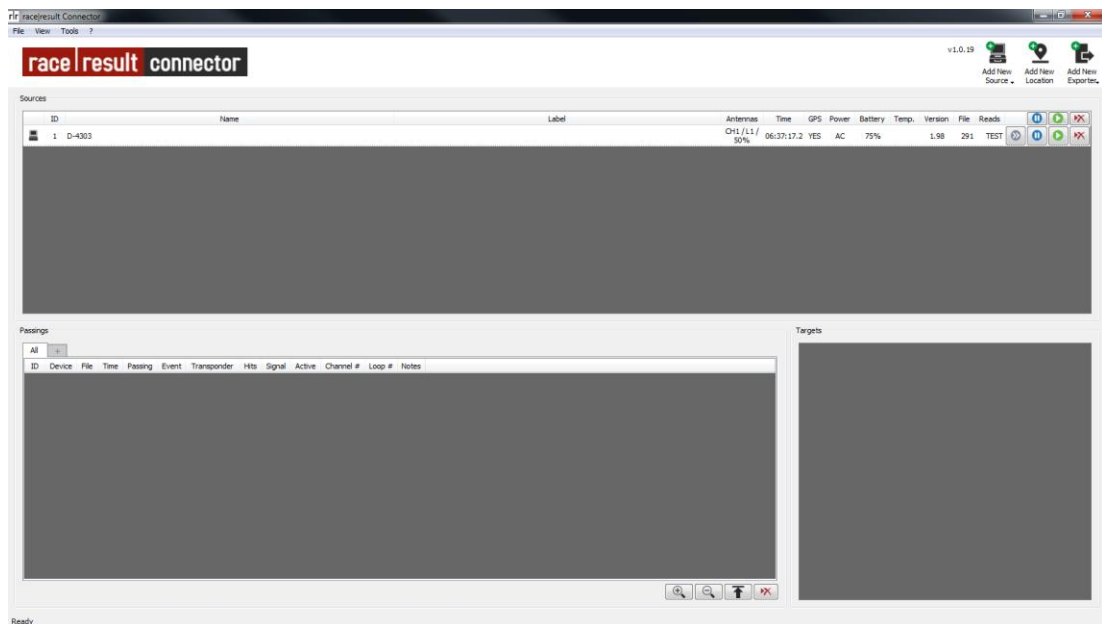
1. Click on the Add New Source icon and select race|result System LAN



2. Enter the decoder's IP address, 192.168.1.203 in this example then click Connect.



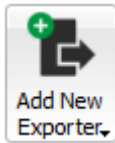
3. Connection to the decoder is now shown



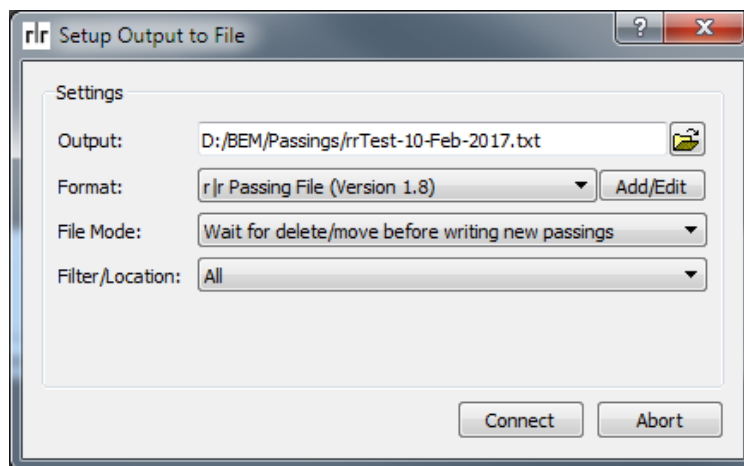
## Set up file exporter

This section sets up the file export for BEM / BemTrain to import passings.

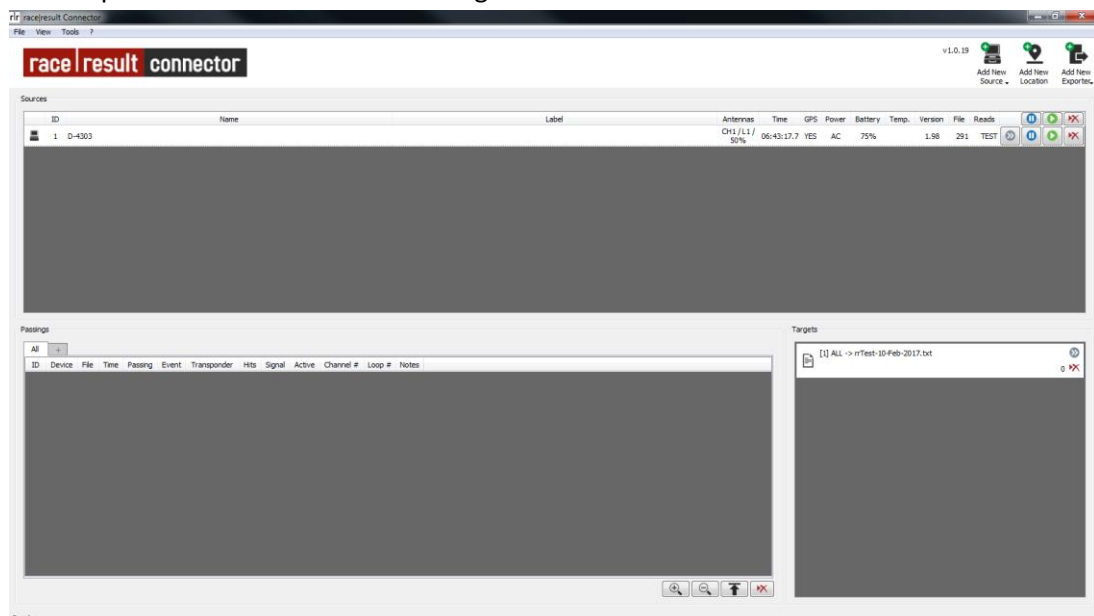
1. Click on the Add New Exporter icon and select file path and enter the file name



2. The Setup Output to File dialog is shown.  
In the File Mode options, select "Wait for delete/move before writing new passings".

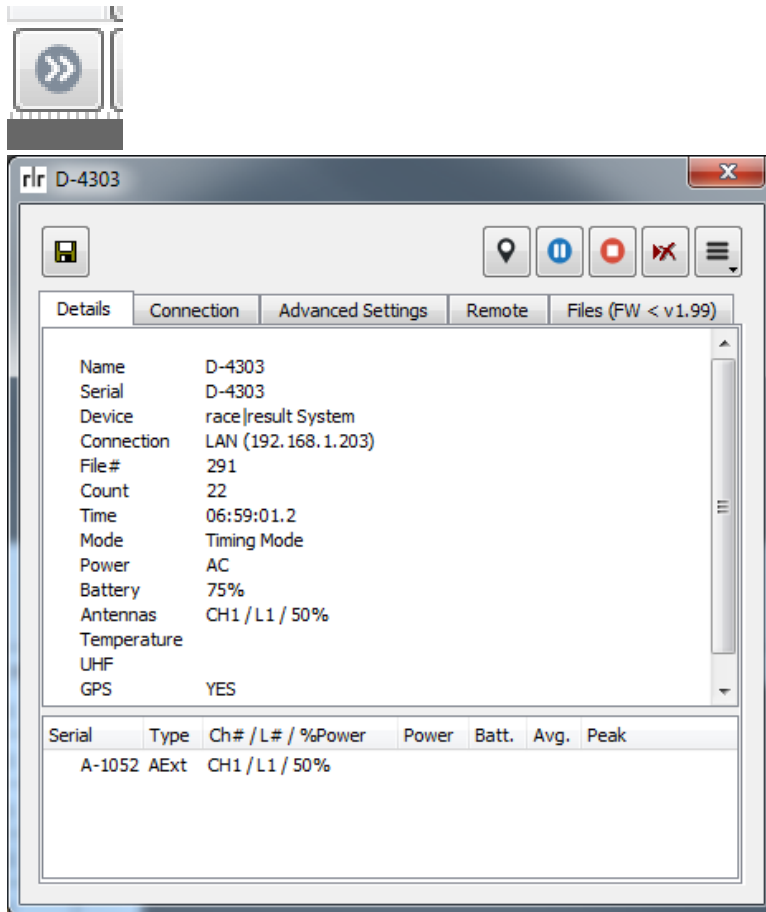


3. If all details shown are correct, click on Connect.
4. The output file is now shown in the Targets section.



5. RR Connector will initially write a 0 byte file in the export folder which can be used for passing file selection in BEM / BemTrain.

6. You can set up multiple export targets to separate files / folders. These operate independently so for example you could use one export for BEM and a second export for BemTrain.
7. Click on the Device Icon to bring up the decoder details.



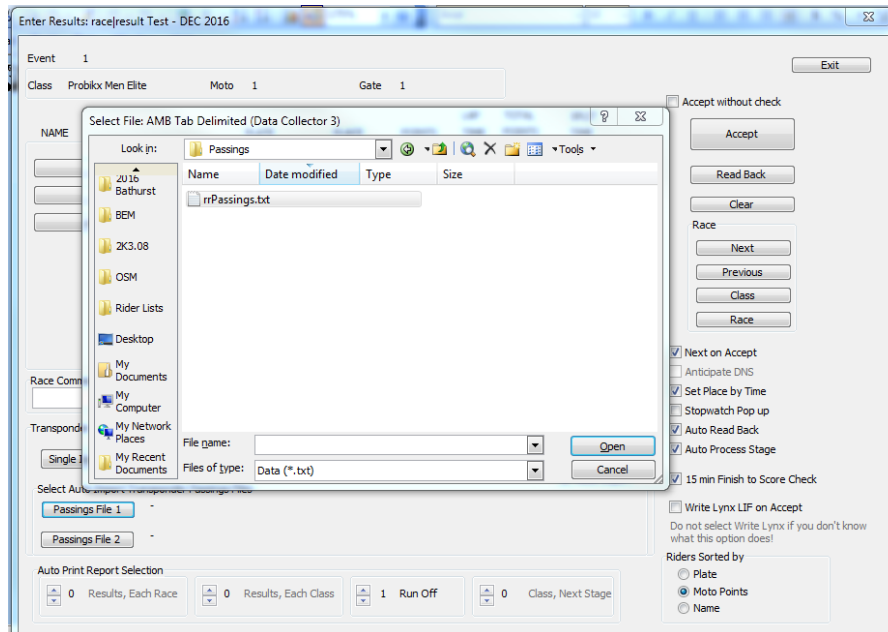
Click on Advance Settings and set the Double Detection Timeout to an appropriate non zero value then click the Save icon. Suggested that 5 seconds will be OK for most BMX configurations but will be track dependant.

## Setup in BEM

This section shows the setup in BEM for scoring events with passings from race|result Collector.

1. Run BEM and select the event file to be scored.
2. Go to the Results Entry screen for Race 1.
3. Click on Passings File 1 button and select the passing file setup in RR Connector.

E.g. C:\BEM\Passings\rrPassings.txt



Note that a Passings File 2 selection in BEM is not required as passings from all timelines are in the one file.

- Click on the Settings button to open the Transponder Lap Time Settings. Typical settings for importing passings from the race|result Connector export file is shown in the screen shot below.

#### Notes:

- Finish Timeline set for Channel 1, Loop 1
  - Start Reaction Timeline set for Channel 1, Loop 2
  - Start Gate set for 99999
  - Passing Record File Type set for race|result Connector
  - set Photo Finish Check to zero when a photo finish camera is not being used.
- Back at the Results Entry Screen, test the import by clicking the **Import Now** button. Follow up on any error messages received.
  - Just prior to the start of racing when the track is clear, flush any buffered records by clicking on the Import Now button until the “Passing Files not found, Nothing to process” message is received.

7. Click on the Review Passings button to display the passings from practice imported into BEM. Delete these passings from the BEM event by:
  - a. Selecting all passings.
  - b. In the Status Change group, select **Ignore Record** and click on the **Change Selections to** button.

Transponder Passings

Status Change

Print Selected Range

Change Selections to

☐ Not Assigned

☒ Ignore Record

Delete "Ignore" Status

Exit

#	Transponder	Location	Date	Time	Status	C	M	G	Event	Pile	Name	LapNr	Th	Tri	Th	
1	BBUNF83	Finish	18/06/2015	11:10:56.278	Not Assigned					4A	Gillian ANDERSON-FOX	1	11	10	56	278
2	BBUNF01	Start	18/06/2015	11:10:56.434	Not Assigned					21	Gabby CAMPBELL	2	11	10	56	434
3	BBUNF83	Start	18/06/2015	11:10:58.920	Not Assigned					4A	Gillian ANDERSON-FOX	3	11	10	56	920
4	BBUNF01	Dummy Start ↑	18/06/2015	11:11:01.957	Not Assigned					21	Gabby CAMPBELL	4	11	10	56	957
5	BBUNF01	Double Detect	18/06/2015	11:11:04.981	#						####	5	11	10	56	981
6	BBUNF01	Double Detect	18/06/2015	11:11:07.821	#						####	6	11	10	56	821
7	BBUNF83	Double Detect	18/06/2015	11:11:07.891	#						####	7	11	10	56	891
8	BBUNF83	Double Detect	18/06/2015	11:11:08.899	#						####	8	11	10	56	899
9	BBUNF01	Double Detect	18/06/2015	11:11:09.610	#						####	9	11	10	56	610
10	BBUNF83	Double Detect	18/06/2015	11:11:09.911	#						####	10	11	10	56	911
11	BBUNF83	Double Detect	18/06/2015	11:11:10.514	#						####	11	11	10	56	514
12	BBUNF01	Double Detect	18/06/2015	11:11:11.391	#						####	12	11	10	56	391
13	BBUNF83	Double Detect	18/06/2015	11:11:12.000	#						####	13	11	10	56	000
14	BBUNF01	Double Detect	18/06/2015	11:11:12.403	#						####	14	11	10	56	403
15	BBUNF83	Double Detect	18/06/2015	11:11:13.094	#						####	15	11	10	56	094
16	BBUNF01	Start	18/06/2015	11:28:43.961	Not Assigned					21	Gabby CAMPBELL	2	11	28	43	961
17	BBUNF83	Start	18/06/2015	11:28:43.965	Not Assigned					4A	Gillian ANDERSON-FOX	1	11	28	43	965
18	BBUNF01	Finish	18/06/2015	11:28:49.399	Not Assigned					21	Gabby CAMPBELL	4	11	28	49	399
19	BBUNF83	Finish	18/06/2015	11:28:49.407	Not Assigned					4A	Gillian ANDERSON-FOX	3	11	28	49	407
20	BBUNF83	Double Detect	18/06/2015	11:28:53.457	#						####	5	11	28	53	457
21	BBUNF01	Double Detect	18/06/2015	11:28:53.461	#						####	6	11	28	53	461
22	99999	Start	18/06/2015	11:28:56.124	Not Assigned						Gate 2	7	11	28	56	124
23	99999	Double Detect	18/06/2015	11:28:56.944	#						####	8	11	28	56	944
24	BBUNF01	Start	18/06/2015	11:29:45.856	Not Assigned					21	Gabby CAMPBELL	9	11	29	45	856
25	BBUNF83	Start	18/06/2015	11:29:45.860	Not Assigned					4A	Gillian ANDERSON-FOX	10	11	29	45	860
26	99999	Start	18/06/2015	11:29:55.508	Not Assigned						Gate 2	11	11	29	55	508
27	NW-06620	Finish	23/06/2015	16:42:56.198	Not Assigned					2A	Lexi MERRETT	1	16	42	56	198
28	PP-55484	Finish	23/06/2015	16:42:57.268	Not Assigned					6A	Jessica LATHWELL	2	16	42	57	268
29	PC-60750	Finish	23/06/2015	16:46:42.728	Not Assigned						####	3	16	46	42	728
30	NZ-57790	Finish	23/06/2015	16:47:04.876	Not Assigned					50	Madie GUYERS	4	16	47	04	876
31	NX-74445	Finish	23/06/2015	16:49:34.590	Not Assigned					8A	Samantha THOMASSON	5	16	49	34	590
32	NW-56135	Finish	23/06/2015	16:56:53.314	Not Assigned					308	Taylor STREYKUS	6	16	56	53	314
33	NX-42887	Finish	23/06/2015	16:56:53.879	Not Assigned					2WA	Bethany STONE	7	16	56	53	879

- c. Click **Delete "Ignore" Status** button to delete these practice records.
8. Ready to go racing 😊



## Setup in BemTrain

This section shows the setup in BemTrain to run all facilities (Test Station, Track Monitor, Scoreboard, Training) in BemTrain with passings from race|result Collector.

1. Run BemTrain
2. Enter the following details for the Session:
  - a. Session Name: enter a meaningful name, "RR Example" in this screenshot.
  - b. For loop 1:
    - i. Enter the Channel and Loop numbers for the Hill loop with a comma separator. 1,2 in this example.
    - ii. Click Select File and select the passing file setup in RR Connector.  
E.g. C:\BEM\Passings\rrPassings.txt
  - c. For loop 10, enter the Channel and Loop numbers for the Finish loop with a comma separator. 1,1 in this example.
  - d. In the Gate Transponder, enter 99999.
  - e. In Run Mode, select Start Gate as the run start trigger.
  - f. In the Run Time Settings, enter times appropriate to the track being used.  
Typical times for a BMX race are 01, 10 and 3:40
  - g. In the Passing File Format options:
    - i. Select RaceResult RRconnector.  
Note that this selection will auto select the "Multi Timelines in one File" option which is a required selection.
    - ii. Ensure Delete Passing Files after Processing is selected.
3. Click Save Current Session to save the session.  
Note that the Run Application buttons are not enabled until the Session is saved.
4. Setup screenshot.

The screenshot displays the BemTrain Version 2.2.2.04 Sep 2016 interface. The 'Session Name' is 'RR Example'. The 'Loop Location' table lists 10 loops with their respective locations and 'Enable' checkboxes. The 'Passing Files' column shows file selection buttons. The 'Training Report' section includes 'Distance Units' (Meters) and 'Gate to 1' (0). The 'Run Mode' section shows 'Single Run Start Trigger' (Start Gate) and 'Velodrome Laps Mode' (Timeline 1 is Start and Finish). The 'Run Time Settings' section shows 'Minimum Gate to Loop 1' (01), 'Maximum Gate to Loop 1' (10), and 'Maximum Run Time' (3:40). The 'Passing File Format' section shows 'RaceResult RRconnector' selected, with 'Delete Passing Files after Processing (normally set)' and 'Multi Timelines in one File' checked. The 'Run Application' section shows buttons for 'Fitting Station', 'Track Monitor', 'Scoreboard', and 'Training'. The 'Session File Control' section shows buttons for 'Open Session', 'Save Current Session', 'Save Session As', and 'Close Session'. The 'Exit' button is at the bottom right.

First Loop in Run	<ChannelID>,<LoopID> Example 1,3	Enable	Loop Location (to show in reports)	Passing Files
1	1,2	<input checked="" type="checkbox"/>	Bottom of Hill	<input type="button" value="Select File"/>
2	Loop2	<input type="checkbox"/>	First Corner Exit	<input type="button" value="Select File"/>
3	Loop3	<input type="checkbox"/>	Mid Corner 2	<input type="button" value="Select File"/>
4	Loop4	<input type="checkbox"/>	Mid Third Straight	<input type="button" value="Select File"/>
5	Loop5	<input type="checkbox"/>	Corner 3 In	<input type="button" value="Select File"/>
6	Loop6	<input type="checkbox"/>	Sprint_Start	<input type="button" value="Select File"/>
7	Loop7	<input type="checkbox"/>	Sprint_10m	<input type="button" value="Select File"/>
8	Loop8	<input type="checkbox"/>	Sprint_20m	<input type="button" value="Select File"/>
9	Loop9	<input type="checkbox"/>	Sprint_30m	<input type="button" value="Select File"/>
10	1,1	<input checked="" type="checkbox"/>	Finish Line	<input type="button" value="Select File"/>

5. Good to go 😊