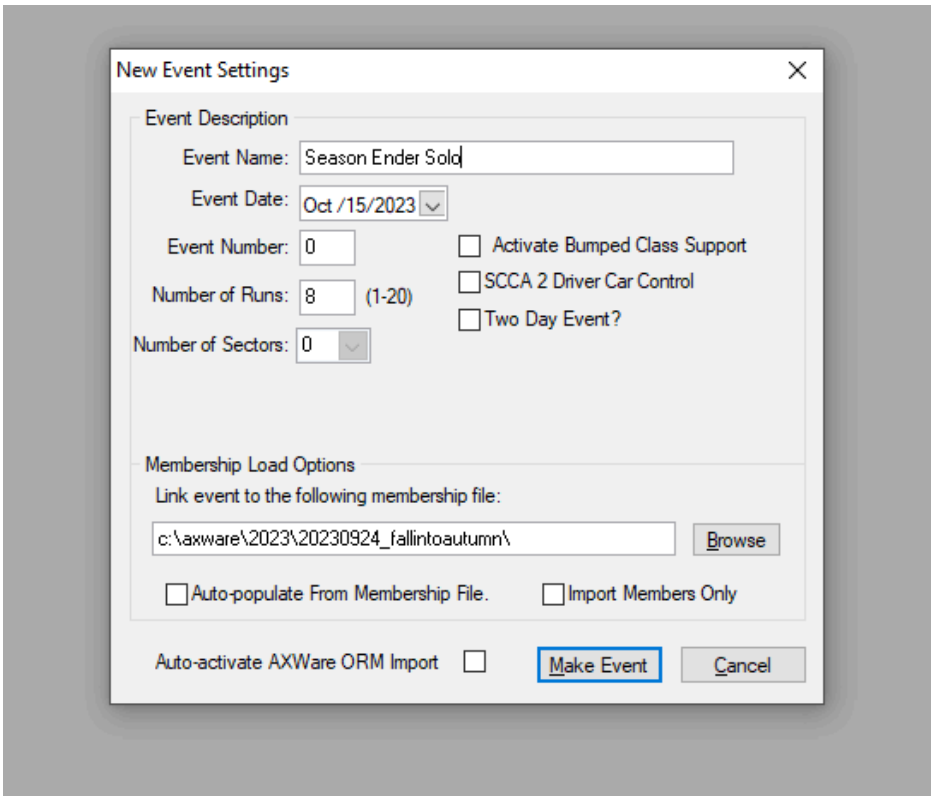
Timing items needed to run event

- Timing Computer
- Registration computer or tablet (at least two recommended)
- Wifi hotspot
- Timing Lights
- Farmtek timing light control box
- Serial to USB cable (control box to timing computer)
- Large timing display
- AA batteries for control box, microphone and various other devices
- 9 volt batteries for timing lights (replace timing light batteries at the start of every event
- Large antenna for timing lights placed far away from funmover
- Antenna cable to go from timing light connector to larger antenna connector
- Some sort of display for announcer (tv, computer monitor, or computer acting as announce client
- Timing sheets (print from timing computer)
- Penalty sheets (print from timing computer)
- Some method of auditing results (printer to print audit sheet from timing computer, or computer acting as announce client
- Computer mouse
- Clipboards
- Pens

Creating an Event in AxWare

Open AxWareTS by selecting the icon on the desktop.
Go to File -> Start New Event. You will be presented with this popup

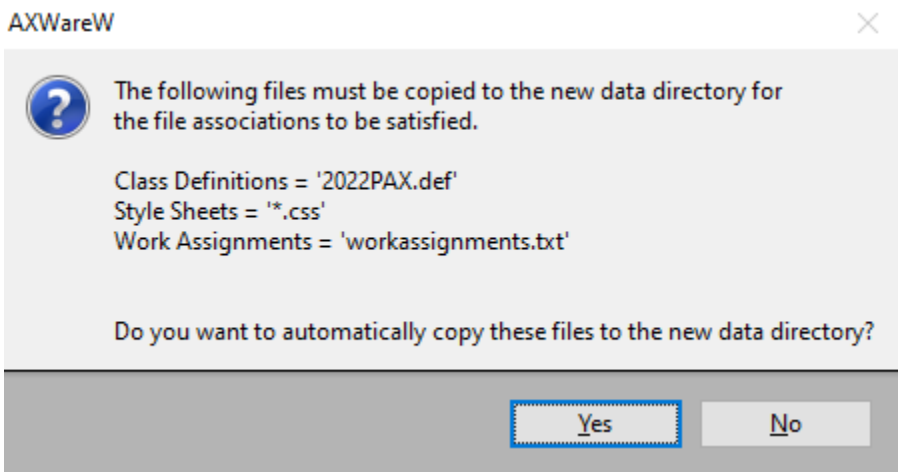


- Enter the name and date of the event. These will show up in live timing and the final results reports
- Event number is used for season points which the Detroit Region does outside of AxWare, so its not important to set here
- Number of runs should be set to a value that is higher than you expect the actual number of runs to be. It's easier to set this value higher, than to set it too low and try to adjust it during the event.
- Number of sectors, Bumped Class Support, and 2 Driver Car Control is not used by Detroit Region
- Two Day event is sometimes used for separate morning and afternoon courses and is used to add the two times from each "event' together
- AxWare Membership load options are not used by detroit region and can be left blank

Select make event

After a moment, a popup will appear to name and save the event. Make sure to keep the events organized. Store events in the C drive in the Axware folder, in the appropriate year. Create a new folder for the event that is being created, name the .ecf file and hit save

You should see the following popup. If you do not, you will need to manually copy a couple of files

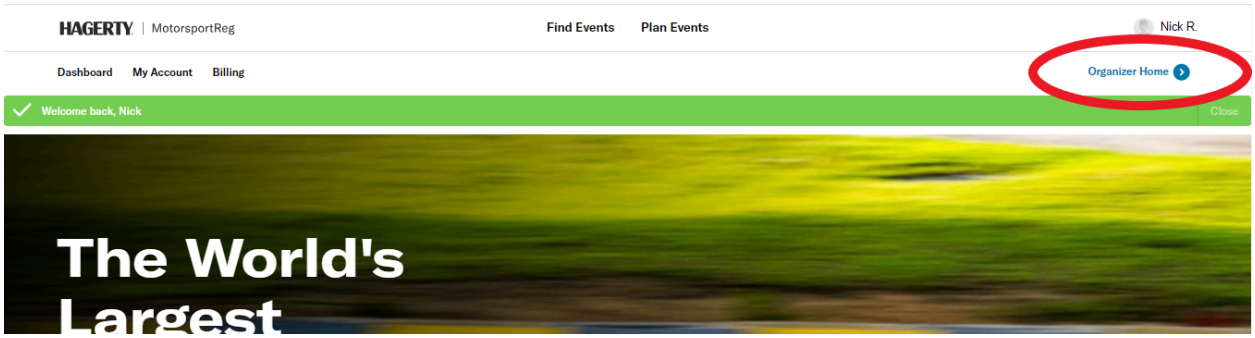


Hit Yes

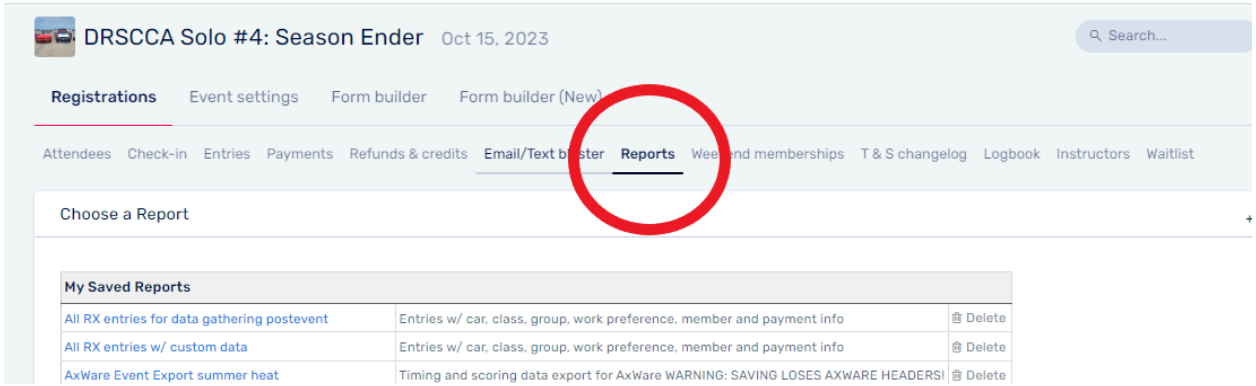
Importing registrations into AxWare

Exporting from Motor Sport Reg

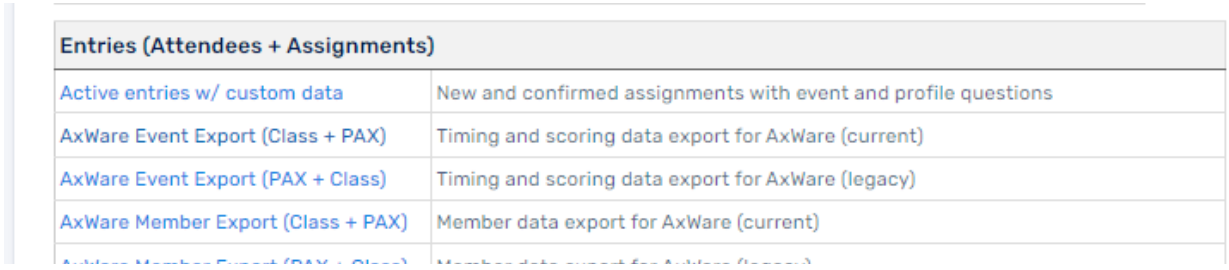
Go to motorsportreg.com and go to the organizer home. If someone needs to log in, make sure they have access to the organizer home.



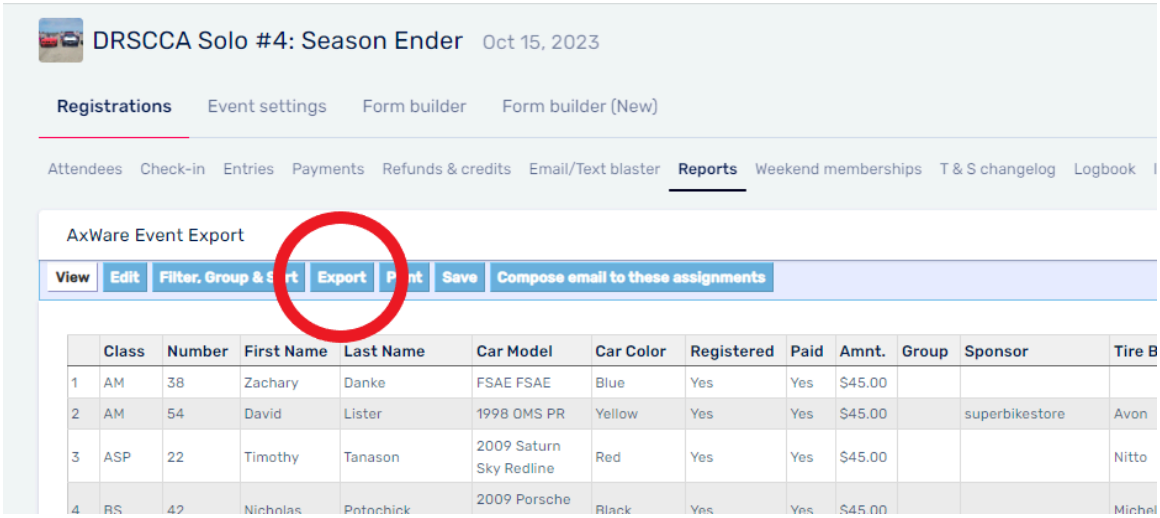
Go to the event that you are setting up in MSR and go to the reports tab



Scroll down and select AxWare Event Export (Class + PAX)



Select Export



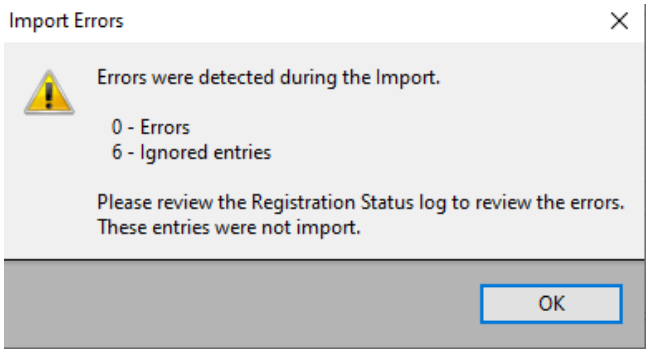
Select Tab-Seperated values (TAB)
Select Export Report
Save the file somewhere

Import into AxWare

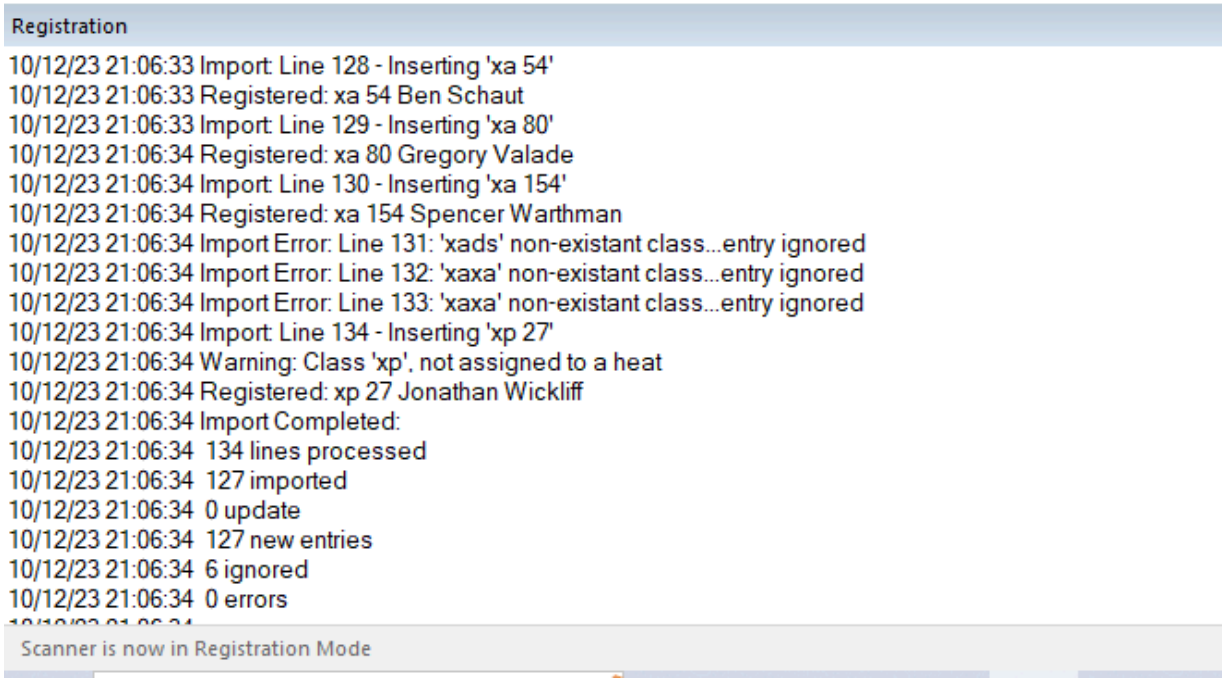
In the event in AxWare, go to file -> Import -> registrations

There will almost always be issues with the registrants in MSR that cause issues in AxWare. The two most common issues are people who have registered with an incorrect modifier and multiple people who register with the same number.

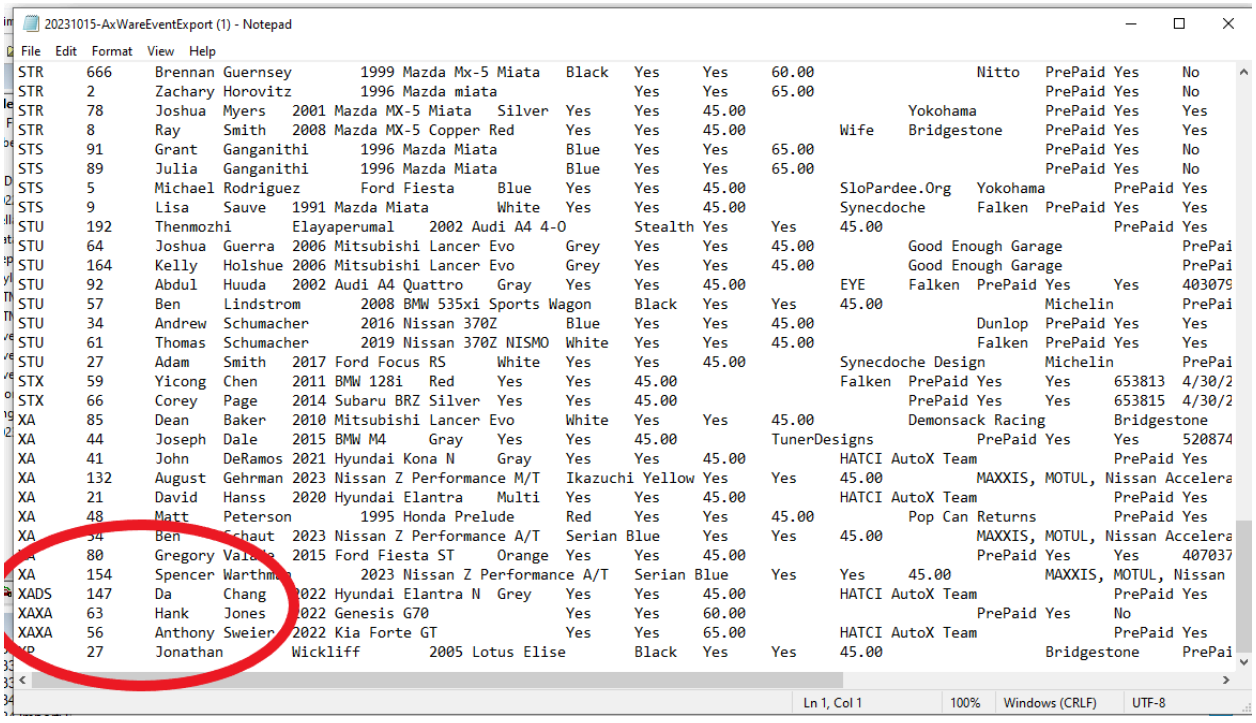
If there are issues you will see this popup



These errors/ignored entries must be fixed or those registrants will not be imported into AxWare
To find the issues, in AxWare, go to the View tab and select registration log
Here you will be able to see where the import issue occurred.



At this point, go into the registration export TXT file and fix the issues.



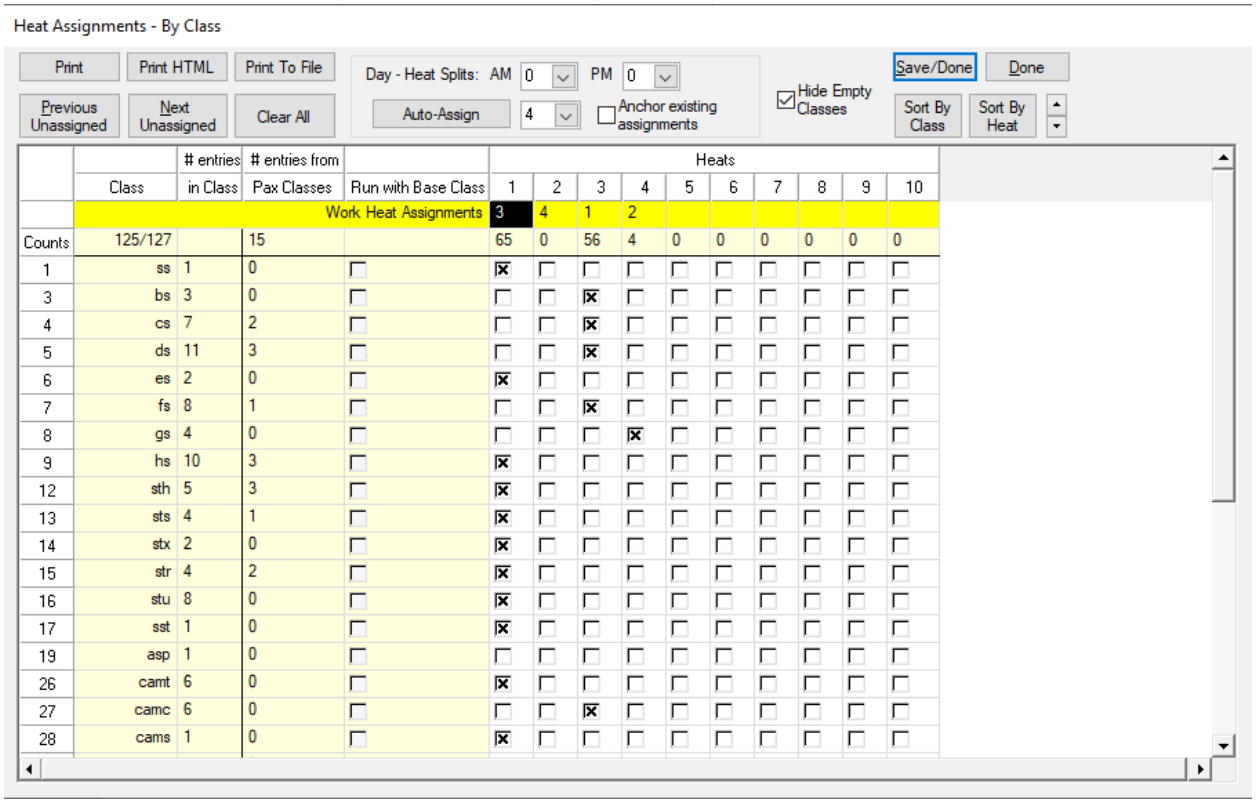
From here it is easy to see that these registrants entered a modifier in addition to their class (XA). AxWare does not recognize this as a class and so rejects the registrations. Simply edit the classes to show just XA.

The same thing goes for registrants who have entered the same number as someone else. In this instance it is good to reference the entries tab in Motorsportreg to see what the 2nd number choice was for that registrant. Change the number in the TXT file and make sure the registrant is informed of their number change.

Once these issues have been fixed in the TXT file, in AxWare, go to edit -> delete all cars. Then reimport the registrations and confirm no errors/ignored entries come up. I wish they put little fireworks or something on the screen once it imports with no issues, but alas, there is no fanfare.

Setting the run/work order

Now that the registrants have been loaded into AxWare, the run work order can be created
In the setup tab of AxWare, go to heat assignments



In this screen you will select how many heats you intend to run.This depends heavily on how many people are registered. It is important that there are enough workers in each heat. If the number gets below 30-35 people per heat, the event should run with three heats. If the number is above that, four heats will prevent any of the heats from being too long, therefore preventing workers from being on duty for an unreasonable amount of time.

Once you have chosen how many heats in the dropdown next to the auto assign button. Hit the auto assign button. From there if there have been any requested heat assignments such as the course designer not wanting to work 1st heat so that they can monitor the course for issues. Another example is teams needing certain classes to not be in the same heat so that the car can be run in more than one class.

If you make changes to accommodate the requests, go back and move classes around to rebalance the number of drivers in each heat so they are as even as possible.

Wifi Hotspot

The hotspot is needed to be able to run live timing and to network the announce computer, the audit computer, and the main timing computer together.

Turn it on by holding the power button.
Once it is on, press the button to cycle through info on the little screen like the network name and the password.

Timing equipment setup

The timing lights should be labeled. Two lights labeled start pair and two labeled finish pair. For each pair, one of the lights should have the coax plug on the top

If timing lights die or a replacement timing light needs to be introduced for some reason, use the timing control box to assign start and finish pairs. Instructions for this can be found by googling the timing box name and looking through the manual online.

Before the timing lights are set up, replace the 9v battery. It's better to spend a little extra money on batteries, than to hold up an event because one of the batteries died and needs to be replaced.

When setting up the timing lights, put the plastic glare shrouds on the boxes. These help prevent glare from the sun from interfering with the timing lights.

When setting up timing lights, consideration should be taken to place the timing lights so they don't get run over. Usually the start pair can be placed close together since most start's are while the vehicle is still launching. However for the finish light placement, oftentimes there is a tight corner right before the finish and drivers often push the corner too hard and spin. Placing the timing lights very far apart can help mitigate this risk to the equipment.

Usually the start is placed fairly close to the timing van so the start light can use the small antenna found in the timing box. If either pair of lights is placed far from the timing van, the large antennas with coax cable adapters should be used to make sure that the light trips make it to the van so that times are not missed by the control box. Err on the side of caution. We have plenty of antennas and cables. If in doubt about the range of the small antennas, just use the large antennas so that timing issues don't hold up the event.

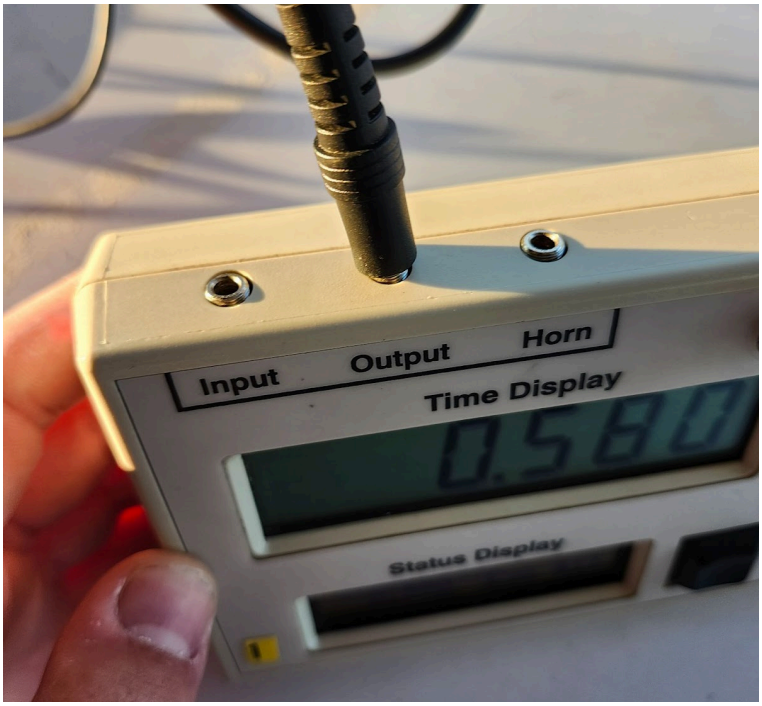
To confirm initial light setup and aim, take the farmtek control box out to the start and finish while you are setting up the lights. Confirm that the start light pair is configured properly by the 1 showing up in the bottom right. If it is not aimed right or a light is turned off or something is going on, an x will be in there. Cross the beam and confirm that a time starts. Repeat this process with

the finish lights and check for the small 2. Push the black start button on the control box, then cross the finish beam and confirm the time stops.

After this, go back to the timing van, plug the control box into the antenna mounted on the front window of the fun mover, and have people cross the start beam, and then the finish beam and confirm the trips are making it to the control box.

Confirm that the battery of the control box is adequate (above 50%) by pressing the startup button and then pressing next choice until the battery option appears. Press enter to show the battery state.

Plug one end of the usb data cable into a usb port on the timing computer and the other end into the output of the timing box



If something happens to a light and it needs to be replaced, go to the eye pairing menu in the control box, aim the new light/lights at each other and pair them. Confirm they work as either start or stop lights before putting them out on course.

Go to https://electronic-timing.com/manuals.html and open the polaris link for more information on the control box and timing lights.

Timing van placement

When parking the timing van (oftentimes not the timing and scoring chief so communication or being there first thing in the morning to give input to the driver on where to park) direction is very important. Oftentimes, the fun mover is pointed out to the course which helps the crew keep an eye on cars on course but does not allow for a view of the cars lining up at the start line. This makes it a lot harder for the crew to keep up with recording car numbers and classes which then takes away from their bandwidth to monitor cars on course and prevent issues that may pop up. When possible, make sure the fun mover is at least partially pointed at the line of cars heading to the start line.

Setting up the Fun Mover for the event

Coming soon…

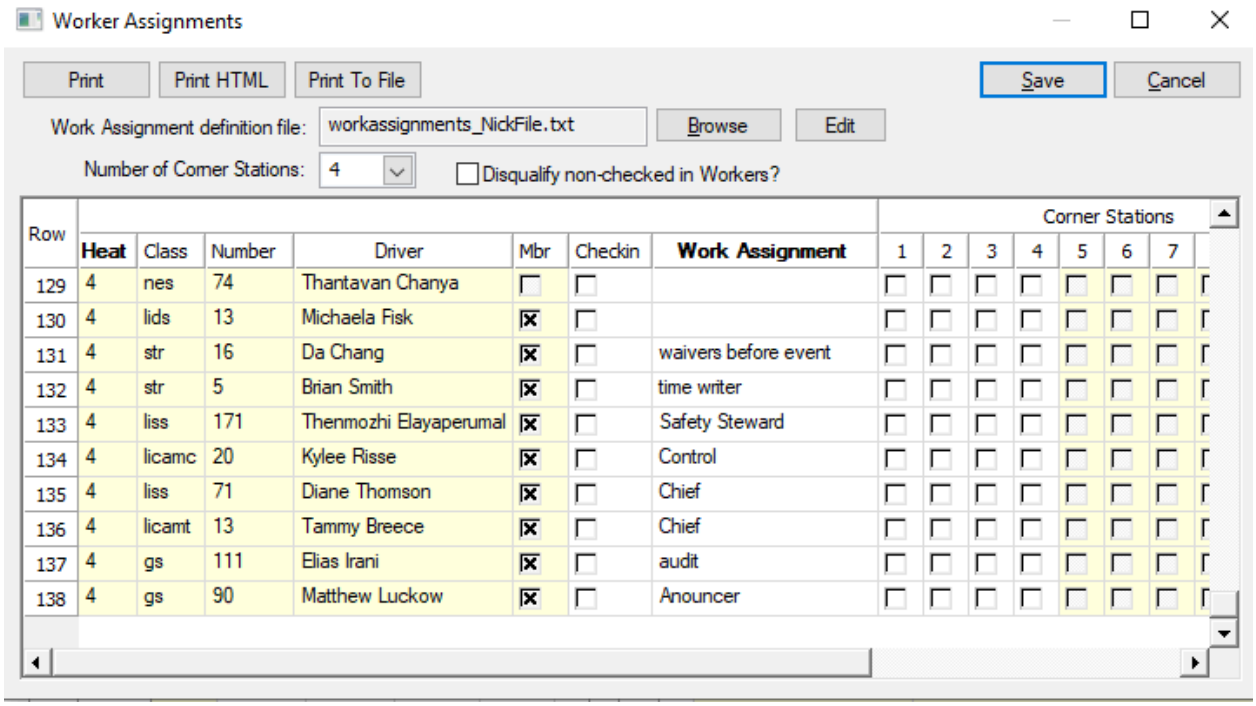
Work assignments in AxWare

Work assignments are a divisive topic. One one hand, assigning everyone's work assignment prior to the event, makes it much easier to make sure that experienced people are placed in the right roles like announcer, starter, corner captains, etc… On the other hand, even a minor change in registrations the morning of the event can cause a butterfly effect of chaos. It also takes quite a bit of work by the chiefs prior to the event.

At a minimum, it's important to make sure a few key roles are assigned ahead of time. This way you know that each heat is covered, and if they aren't, you can adjust the run work order to put the necessary people in the needed heats. At a minimum, each heat must have a safety steward (of which there usually aren't more than 4 or 5 at an event) and the three big timing crew positions of Computer, time writer and radio. Oftentimes, you'll have one heat with too many experienced people or safety stewards, and none or too few in another heat.

To make it easy to see which heats have the necessary workers and which are lacking, you can use the work assignment page in Axware.

After setting up the initial run work order, go to setup - work assignments



Row	Heat	Class	Number	Driver	Mbr	Checkin	Work Assignment	1	2	3	4	5	6	7
129	4	nes	74	Thantavan Chanya	☐	☐		☐	☐	☐	☐	☐	☐	☐
130	4	lids	13	Michaela Fisk	☒	☐		☐	☐	☐	☐	☐	☐	☐
131	4	str	16	Da Chang	☒	☐	waivers before event	☐	☐	☐	☐	☐	☐	☐
132	4	str	5	Brian Smith	☒	☐	time writer	☐	☐	☐	☐	☐	☐	☐
133	4	liss	171	Thenmozhi Elayaperumal	☒	☐	Safety Steward	☐	☐	☐	☐	☐	☐	☐
134	4	licamc	20	Kylee Risse	☒	☐	Control	☐	☐	☐	☐	☐	☐	☐
135	4	liss	71	Diane Thomson	☒	☐	Chief	☐	☐	☐	☐	☐	☐	☐
136	4	licamt	13	Tammy Breece	☒	☐	Chief	☐	☐	☐	☐	☐	☐	☐
137	4	gs	111	Elias Irani	☒	☐	audit	☐	☐	☐	☐	☐	☐	☐
138	4	gs	90	Matthew Luckow	☒	☐	Anouncer	☐	☐	☐	☐	☐	☐	☐

The work assignment list is ordered by which heat the person is working. In the above picture, we are working on heat 4 work assignments as seen by the heat column on the left. We can see that we have a safety steward for this heat, that we have three of the four timing crew positions filled, and that there are a couple people who are "exempt" from working that heat because they

are either chiefs who work all day, or they helped with pre event duties like setup, waivers, or tech.

The first thing to do is to go through and fill in all of those pre event workers and chiefs. This then gives you the pool for the rest of the positions. Next up is making sure that there is a safety steward for each heat. This is currently the hardest part of setting up the run work order. If you only have four eligible safety stewards for a four heat event, and two of them are in the same heat, you must go to the run work order and move the class of one of them to the heat in which there isn't safety steward coverage. To a lesser extent this goes for the timing crew as well. I try to keep track of who has worked timing before. Getting 16 people can be difficult especially if there are multiple experienced people in the same heat but one of the heats has a lack of experienced timing people. I'll usually try to adjust the run work order some more but it gets increasingly harder to move people around while keeping the number of drivers in each heat roughly even.

Once safety stewards and timing crew are locked in, I might go through and assign people who have requested one off roles like starter or announcer that have either requested the assignment or I know would do well in that assignment. However this is not necessary and can be left to the worker chief.

Ideally, the worker chief can help with some of these pre-event work assignments.

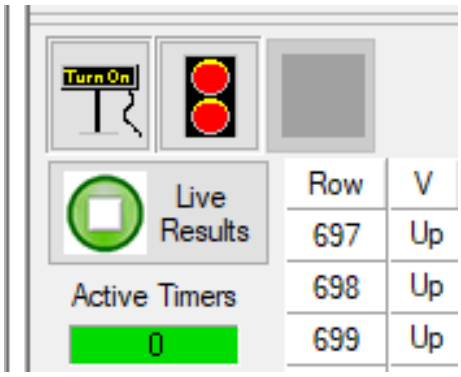
A major difficulty of doing the run work order and some of the work assignments before the event is that if people don't show up, or if they change classes the morning of the event, things can get thrown out of wack. It's important to keep an eye on these changes in the morning and try to adjust them before the start of heat one, so that the worker chief has the most up to date work assignments to assign workers.

The jury is out on what is the easiest way to have workers check in, but the Axware work assignment sheets are fairly convenient (just hit the print button in the work assignment window) since all the unassigned people are listed in alphabetical order, and you can see if someone hasn't checked in. It would be nice to do this on a tablet or something though so that it's easier to see how many people have been assigned to each corner and more easily identify which positions haven't been filled, or where more coverage is needed.

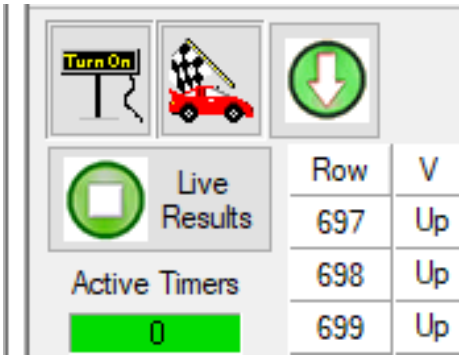
Farmtek timing box input into AxWare

If there are issues with the input from the timing control box to Axware, ensure that the timer communication status is on.

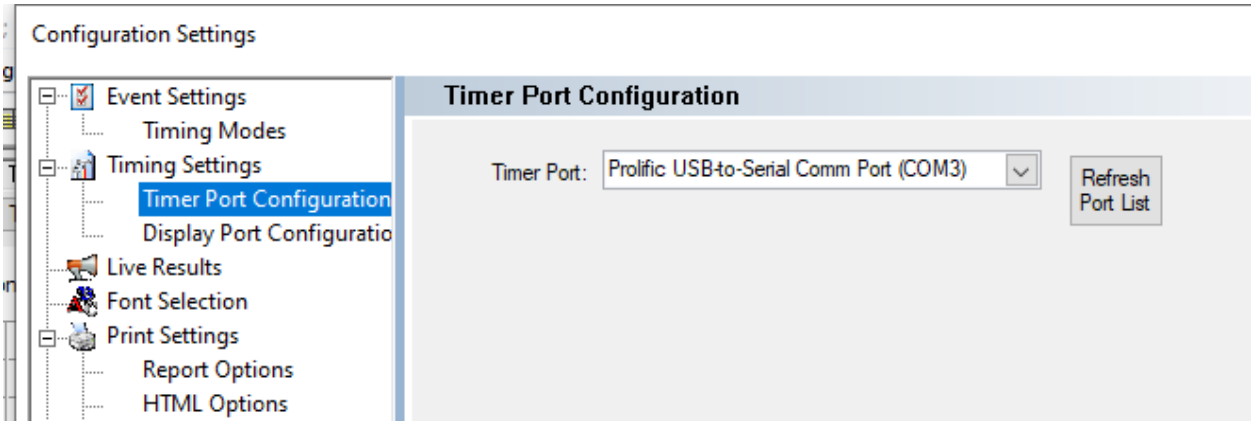
Timer Input off



Time input on



If times are still not coming in to Axware, go to setup, options and to timer port configuration.

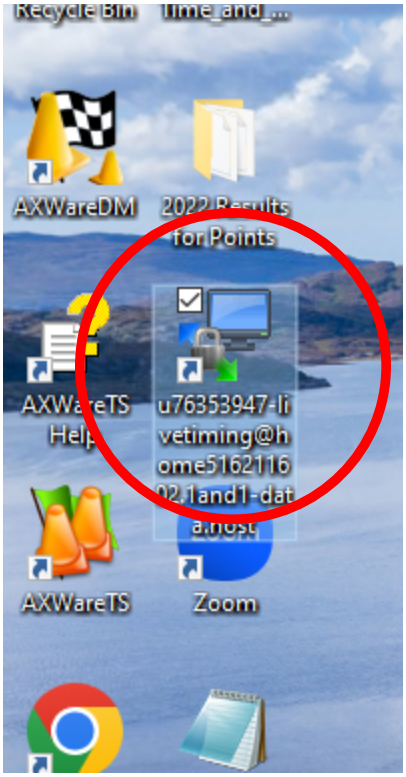


Make sure that a com port is showing in. If it's not, hit refresh port list, and see if the entry appears. If that doesn't work, plug the cable into a different usb port on the timing computer and refresh the port list. If that doesn't work, try one of the spare usb to serial cables. If that doesn't

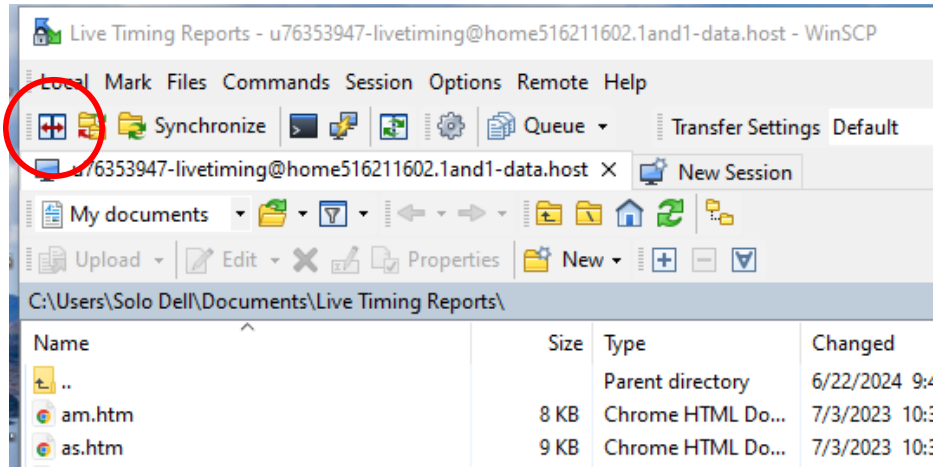
work, close Axware, restart the timing computer and try again. If that doesn’t work, create a copy of the event, and check the port list in that event.

Live timing

To run live timing. Start winscp by clicking this link on the timing server desktop

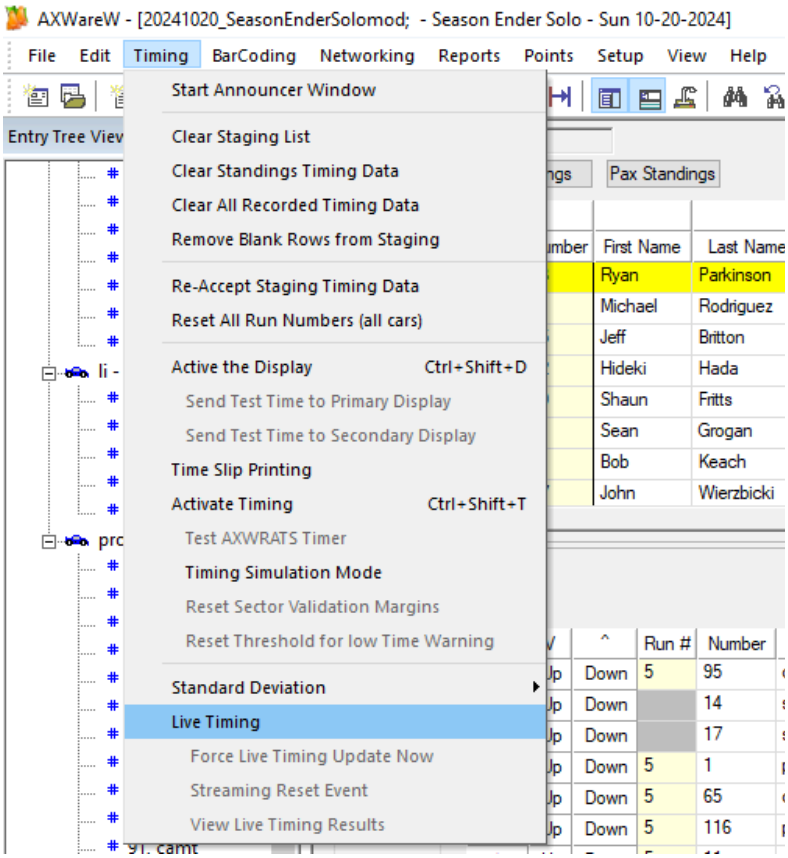


Click on the keep registry up to date icon



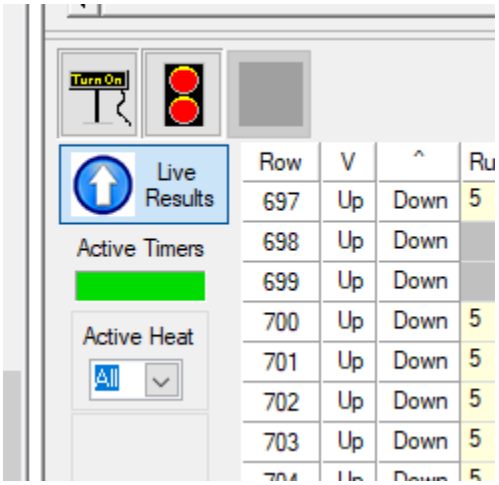
On the menu page that pops up, hit start.
On the confirmation page that pops up, hit yes

In Axware, go to to the timing tab and select live timing

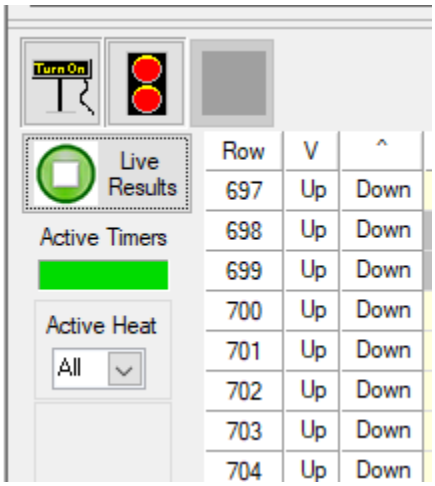


When the status window pops up, hit hide. Do not close it. To ensure that live timing is running, monitor the icon on the main Axware page.

Live timing running



Live timing stopped



To ensure that live timing has updated, go to drscca.org/livetiming and ensure that the header information has updated to reflect the event name and date and so forth.

If for some reason Axware is closed and reopened to fix software issues, make sure to restart live timing in Axware.

Timing light troubleshooting

Timing light issues unfortunately can be due to a variety of factors. An important factor to rule out right from the jump is the batteries. It's better to change them the morning of each event rather than to have one run low and cause timing issues.

Another possible issue is sunlight shining into one of the eyes. This can oftentimes be solved by using the 3D printed glare shields. They fit a little rough but are worth it if sun is an issue.

Another issue is the distance from the lights to the fun move. When they are too far away, the lights trip but can't send the trip to the fun mover.

AxWare Troubleshooting

A Car/Driver are missed and not entered into Axware

Sometimes the timing computer worker is distracted or trying to sort out an issue and misses putting in a car in Axware.

Example

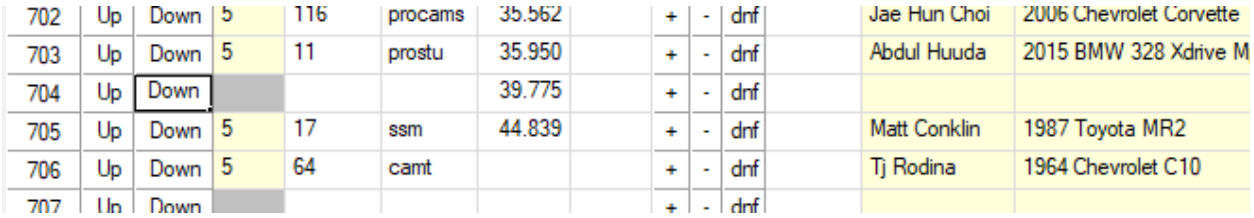
699	Up	Down		17	ssm	56.338	rn	+	-	dnf		Matt Conklin	1987 Toyota MR2
700	Up	Down	5	1	proas	38.793		+	-	dnf		Gregory Valade	2019 Porsche Cayma
701	Up	Down	5	65	camt	36.483	1	+	-	dnf		Aaron Oberle	1965 Chevrolet Cheve
702	Up	Down	5	116	procams	35.562		+	-	dnf		Jae Hun Choi	2006 Chevrolet Corve
703	Up	Down	5	11	prostu	35.950		+	-	dnf		Abdul Huuda	2015 BMW 328 Xdriv
704	Up	Down	5	17	ssm	39.775		+	-	dnf		Matt Conklin	1987 Toyota MR2
705	Up	Down	5	64	camt	44.839		+	-	dnf		Tj Rodina	1964 Chevrolet C10
706	Up	Down						+	-	dnf			

Say abdul goes out and comes across the line with his 39.950. Then Brian Harvey goes out and does a 39.775. BUT since he is not entered into Axware the car that goes after him, Matt Conklin, gets Brians 39.775. Then TJ Rodina gets Matt Conklin's time, and so on and so forth.

Oftentimes missing a car in the order does not get caught for a long time and can result in 5,10,15 drivers having the wrong time. It is critical that the time writer and the control workers crosscheck their sheets with what is in the computer to find exactly where in the order the car/driver was missed.

Axware treats the times that are in the system like sacred data. Once times are in the computer it is fairly difficult and not very intuitive to adjust them. In this particular troubleshooting scenario, since the times that came in are good, we need to move the drivers rows to line them up with the correct time. In the case of a missed driver we will hit the Down button (literally the button on

the left next to the row number and Up button) on the row with Brian Harvey's time, but Matt Conklin's information.



702	Up	Down	5	116	procams	35.562		+	-	dnf	Jae Hun Choi	2006 Chevrolet Corvette
703	Up	Down	5	11	prostu	35.950		+	-	dnf	Abdul Huuda	2015 BMW 328 Xdrive M
704	Up	Down				39.775		+	-	dnf		
705	Up	Down	5	17	ssm	44.839		+	-	dnf	Matt Conklin	1987 Toyota MR2
706	Up	Down	5	64	camt			+	-	dnf	Tj Rodina	1964 Chevrolet C10
707	Up	Down						+	-	dnf		

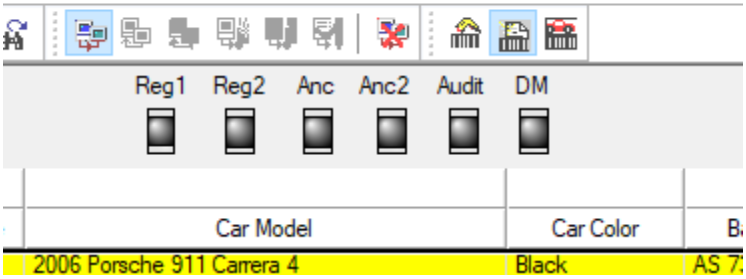
This will push down the driver rows in relation to the times. The down button is less risky than the up button, so use it carefully but if you think times are not lined up right, it is the better option to try if you're not sure what to do. If you Down the wrong rows or that doesn't fix the issue just push UP on the driver (not the time) that you originally hit down, and the rows will go back to the way they were.

There are also issues when the time writer doesn't catch mistakes on course before the times get entered in.
Sometimes you have finishes that dont trip, which (I think has a similar outcome as the above scenario)

Sometimes you starts that dont trip then an extra finish that will end the time for the car after it (prematurely) when it crosses the line

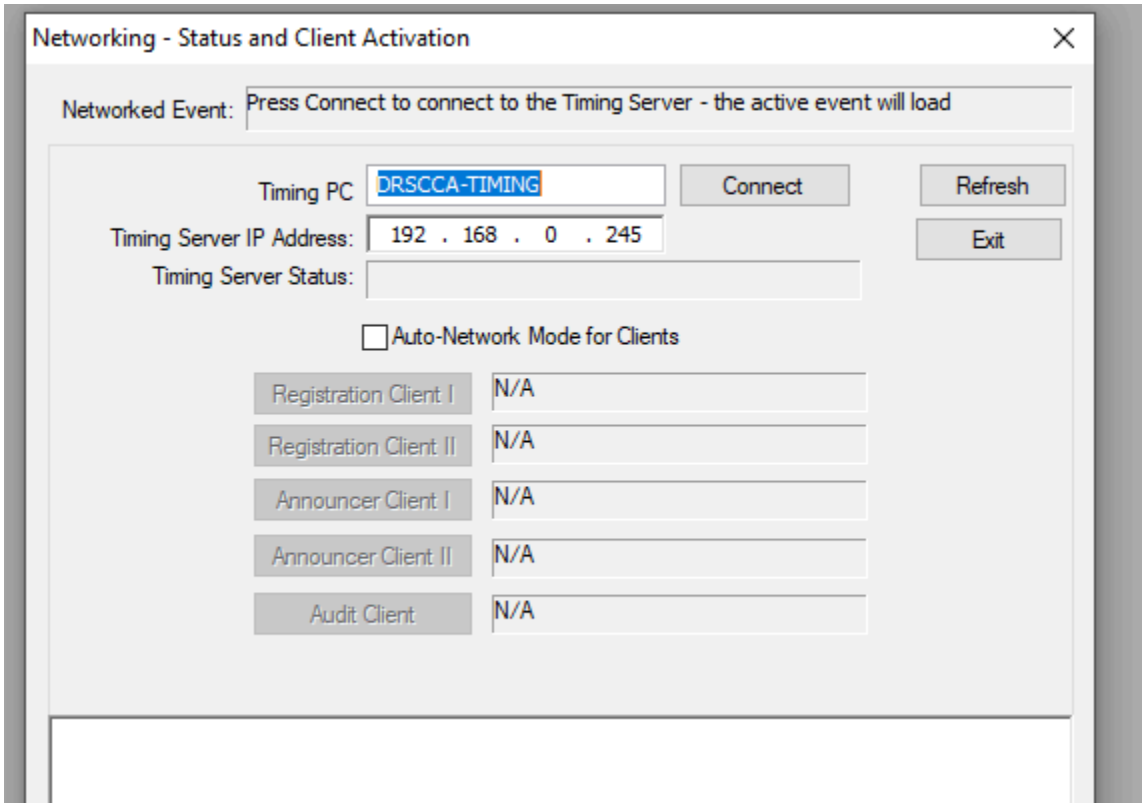
Network Clients

To enable the timing server network, on the timing server computer go to the Timing tab and click Timing Server. You'll see the following icons popup when the timing server is turned on.



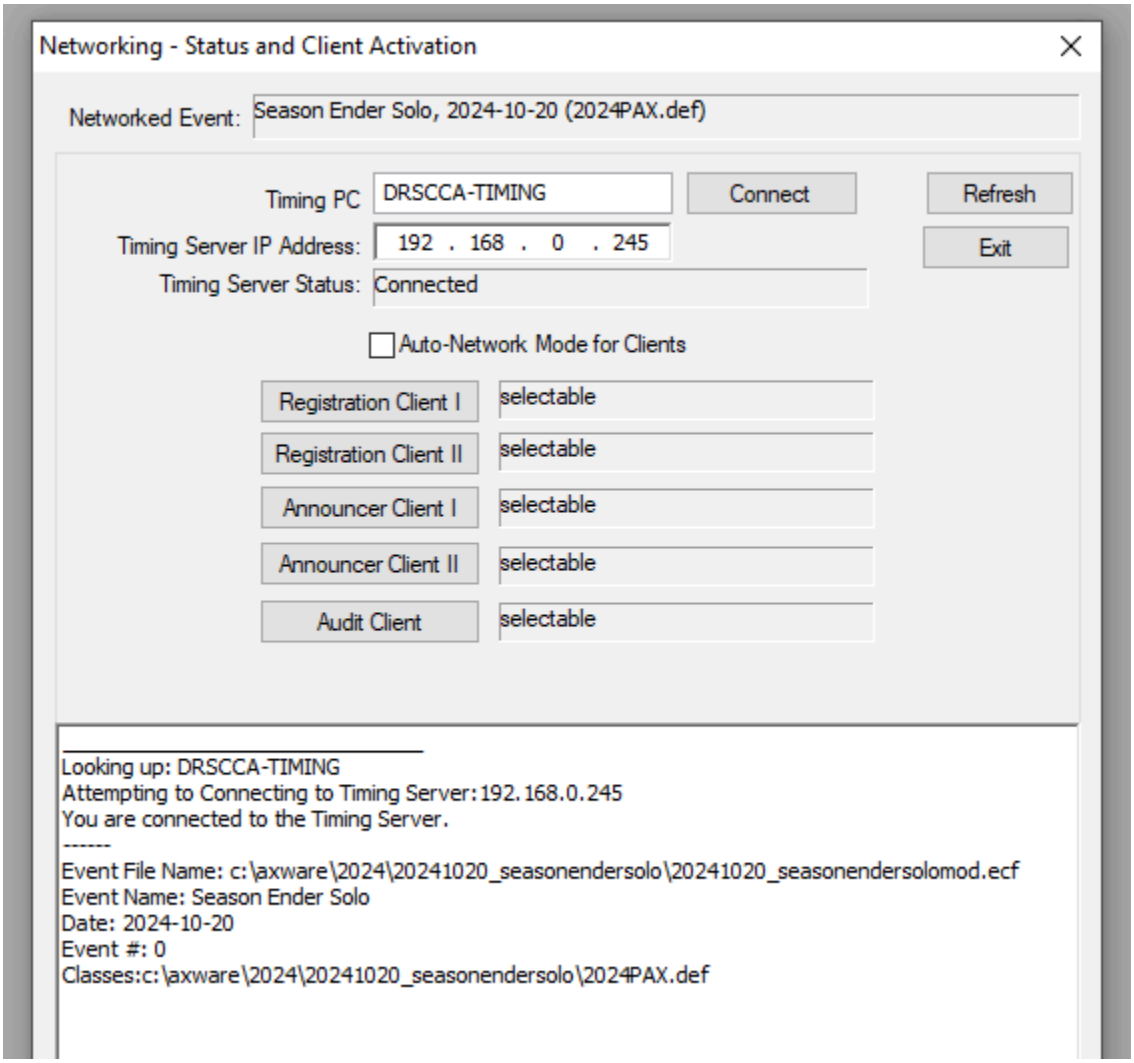
On the audit computer, the announce computer, or just another computer that you want to connect to the timing server, make sure that both computers are connected to the same wifi network.

Open up Axware, go to File - connect to timing server



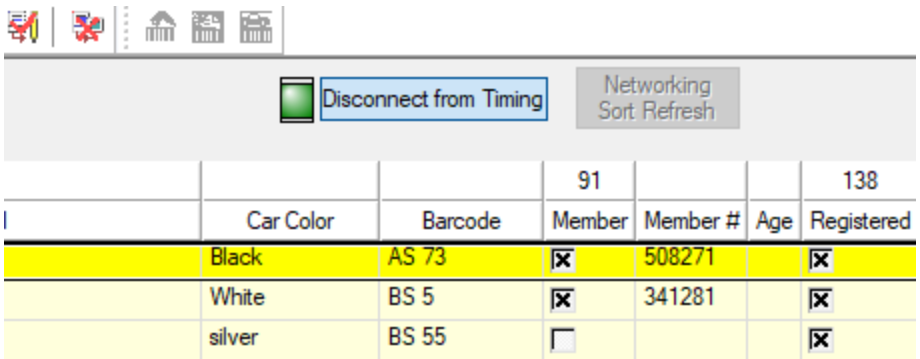
Hopefully the Timing PC hostname and the Timing Server IP Address are correct, and hit enter. If the window doesn't populate with the Timing Server status and the clients don't become selectable, make sure the hostname and ip address are correct (find someone with a decent understanding of computer networking and have them look at the timing server)

If the window populates then select which client you want to use (usually announcer or audit)



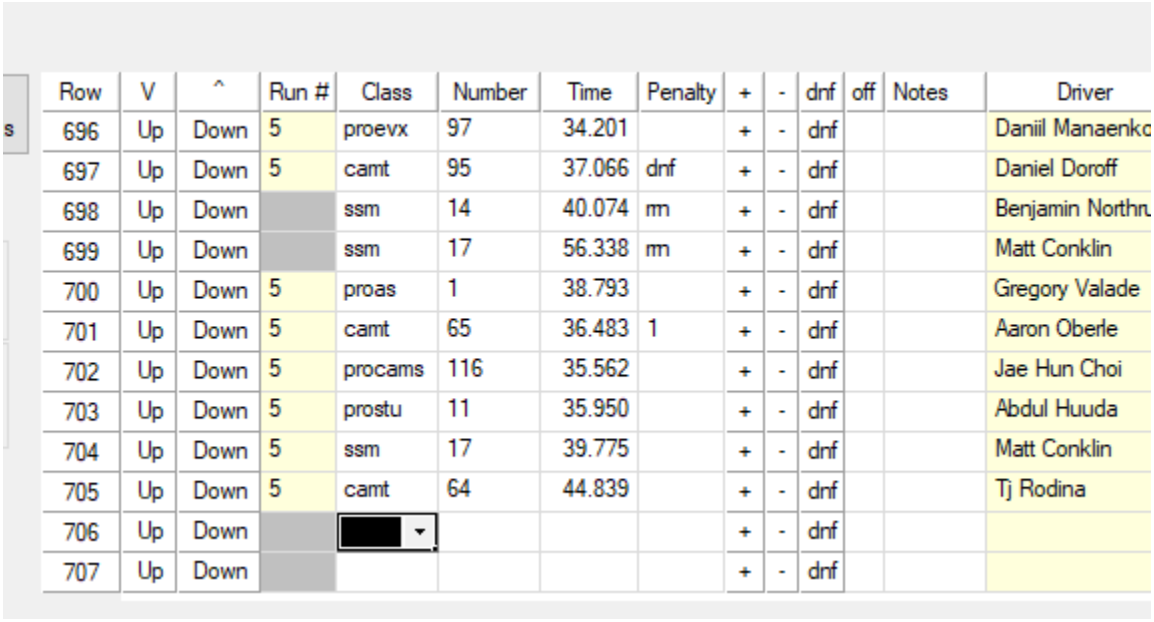
When a window pops up that asks if you want to sync, hit yes.

You should see this light in the networked client when everything is working and good to



Sometimes the network will disconnect and a prompt will appear asking to reconnect. Make sure to check the box that says auto reconnect and then hit connect and it should be fine after that

Auditing



Row	V	^	Run #	Class	Number	Time	Penalty	+	-	dnf	off	Notes	Driver
696	Up	Down	5	proevx	97	34.201		+	-	dnf			Daniil Manaenko
697	Up	Down	5	camt	95	37.066	dnf	+	-	dnf			Daniel Doroff
698	Up	Down		ssm	14	40.074	rrn	+	-	dnf			Benjamin Northru
699	Up	Down		ssm	17	56.338	rrn	+	-	dnf			Matt Conklin
700	Up	Down	5	proas	1	38.793		+	-	dnf			Gregory Valade
701	Up	Down	5	camt	65	36.483	1	+	-	dnf			Aaron Oberle
702	Up	Down	5	procams	116	35.562		+	-	dnf			Jae Hun Choi
703	Up	Down	5	prostu	11	35.950		+	-	dnf			Abdul Huuda
704	Up	Down	5	ssm	17	39.775		+	-	dnf			Matt Conklin
705	Up	Down	5	camt	64	44.839		+	-	dnf			Tj Rodina
706	Up	Down						+	-	dnf			
707	Up	Down						+	-	dnf			

Auditing is done to make sure all penalties are correct per the penalty sheet completed by Control.

In a beautiful world where everything works, using an audit computer that is networked into the timing server is the fastest and easiest way to audit.

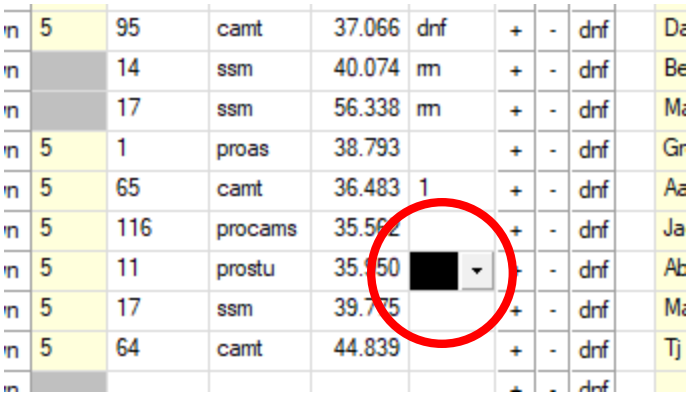
To use the audit computer, follow the steps listed in the network clients section to connect it to the event as an audit client.

To audit the runs, the timing crew will pass the time and penalty sheets to the auditor at the end of each run. At this point, the auditor goes through each line and checks if the time written down is correct and if the penalties on the sheets are entered in the computer.

If a penalty is not in the computer, enter it by using the buttons or drop down menu in Axware.

- \+ Will add a cone
- \- Will remove a cone

The dnf button will add a DNF if the line isn't DNFd and will remove it if it is.
To add a rerun click the drop down in the penalty cell and select rrn

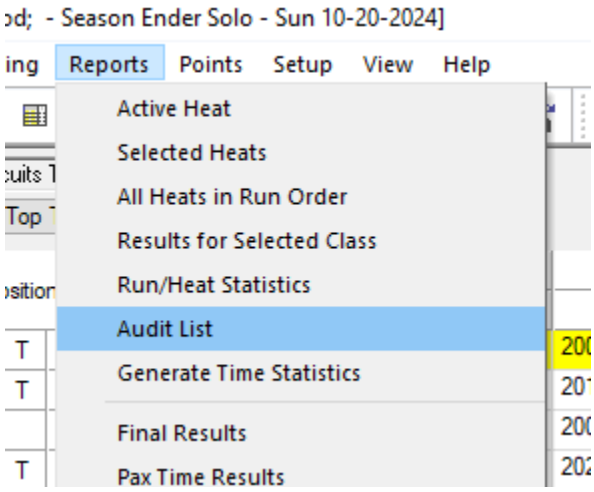


n	5	95	camt	37.066	dnf	+	-	dnf		Da
n		14	ssm	40.074	rn	+	-	dnf		Be
n		17	ssm	56.338	rn	+	-	dnf		Ma
n	5	1	proas	38.793		+	-	dnf		Gr
n	5	65	camt	36.483	1	+	-	dnf		Aa
n	5	116	procams	35.5[illegible]		+	-	dnf		Ja
n	5	11	prostu	35.[illegible]50		+	-	dnf		Ab
n	5	17	ssm	39.7[illegible]5		+	-	dnf		Ma
n	5	64	camt	44.839		+	-	dnf		Tj

Oftentimes multiple cones will be called in and none or only one will be entered in the computer. Sometimes DNFs are not entered or entered incorrectly. When it comes to reruns, often times things will get really complicated with the timing crew and the sheets may have stuff moved around or drivers out of order. Work with the timing crew and roll with it as best as possible. Oftentimes the timing and scoring chief will be the one to make sense of the chaos and will handle things after the heat or the event so check with them if things are too messed up.

Auditing Without An Audit Computer

Sometimes there are computer or network issues that prevent the audit computer from being used. When this happens, a couple more steps need to be taken to audit. In lieu of the computer and all the entries and data, the list of runs must be printed off and errors marked later in the timing server.



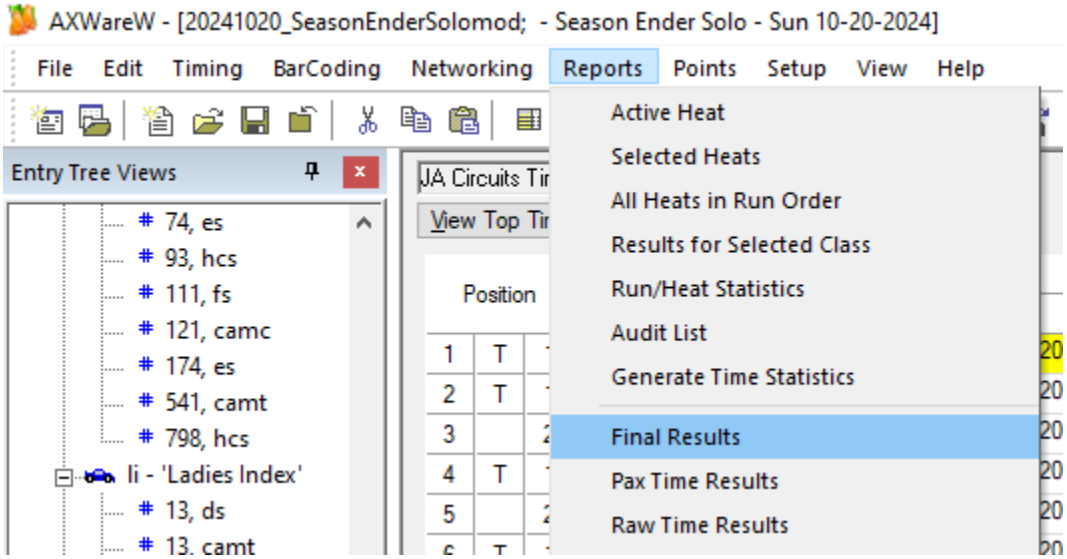
To print off the runs, have the computer operator go to Reports - Audit list on the timing server. A window will popup asking which rows you want to print off. Thankfully, the popup remembers which rows have been printed so for later runs it's easy to print the list. For example, if run one

was 100 runs and you print rows 1-100, when you go to print the second runs, it'll automatically suggest runs 100-200 to print.

The audit list should be printed after each run and handed to the audit person along with the time and penalty audit sheets. If an error is found, mark it on the audit list, then when the computer operator has time, tell them the line number and what to change. If it's a busy heat, the changes must be entered at the end of the heat.

Generating and posting event results

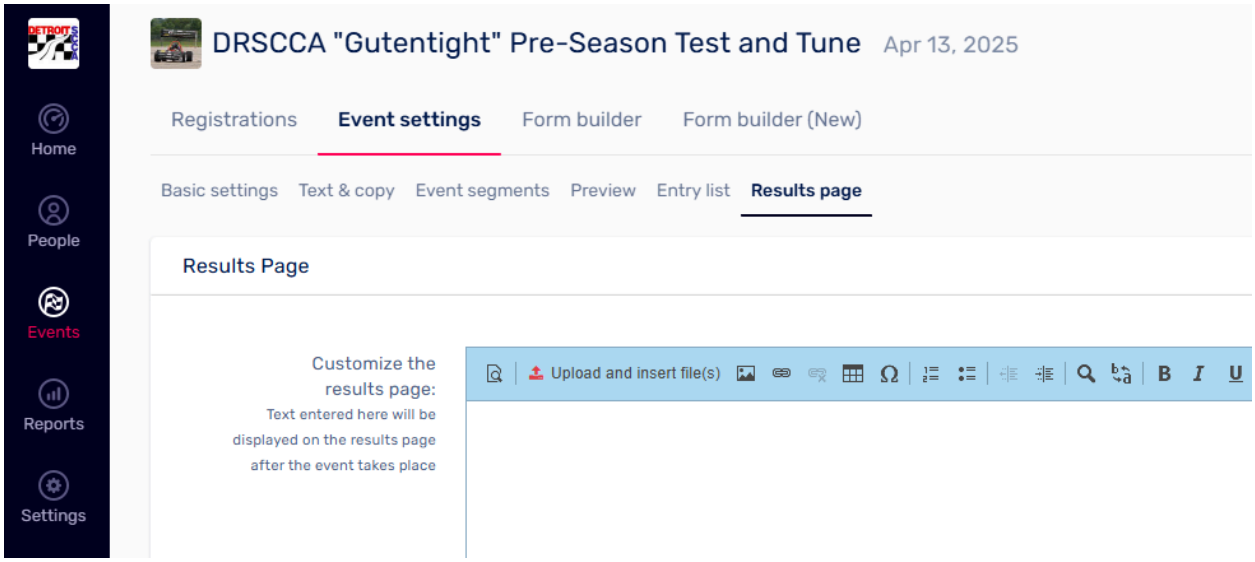
To generate the event results, go to reports and then open and print to PDF the Final Results, Pax Time Results, and Raw Time Results.



I recommend generating raw results and then checking the bottom of the sheet for people who didn't show up for the event and have no times entered. I'll go back into Axware, delete them from the event, and then generate the three results sheets.
Make sure to upload the PDF results to google drive or one drive or a thumb drive or something. Print off the three results so that the trophies can be handed out and so that people on site can get a look at the pax and raw results.

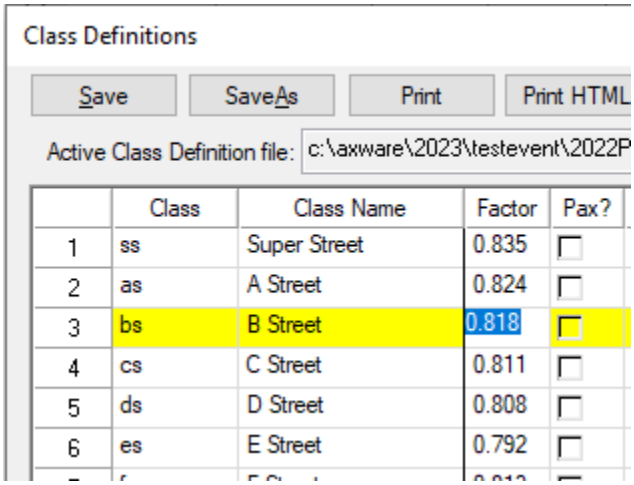
Once home, send the result PDFs to someone who has access to the DRSCCA website for them to upload to the autocross page.

If you have access to the motorsport reg admin page, you can also make a message and link the results in the results page for the event, which will email them to everyone attending the event. This is optional, but nice.


Home
People
Events
Reports
Settings
DRSCCA "Gutentight" Pre-Season Test and Tune
Apr 13, 2025
Registrations
Event settings
Form builder
Form builder (New)
Basic settings
Text & copy
Event segments
Preview
Entry list
Results page
Results Page
Customize the results page:
Text entered here will be displayed on the results page after the event takes place
Upload and insert file(s)

Adjusting Pax values at the beginning of the season

Pax values change each year along with adding and removing classes
Go to https://www.solotime.info/pax/ for the latest values
In Axware, go to setup -> Class Definitions
At the start of each season, the timing and scoring chief needs to change these values. The following examples show the transition from the 2023 values to the 2024 values



	Class	Class Name	Factor	Pax?
1	ss	Super Street	0.835	☐
2	as	A Street	0.824	☐
3	bs	B Street	0.818	☐
4	cs	C Street	0.811	☐
5	ds	D Street	0.808	☐
6	es	E Street	0.792	☐

Select the value in the factor column for each class and update it. For example, the CS pax factor was .811 in 2023. For 2024 this value changes to .813

If you notice that a class is missing from the PAX/RTP website, it is likely that the class has been removed by the SCCA. Pull up the solo rulebook for the year, and do a quick check for the class. If it is not listed in active classes, remove the class in the class definition window.

If you notice a new class, again, double check the solo rulebook and add the class in the Class Definition Window

Additional Info Needed

Timing light troubleshooting
AxWare Troubleshooting