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2017-2018 **FIRST**[®] Tech Challenge Scorekeeper Manual Part II: Scoring System Guide (For League Meet & League Tournament Events)



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Revision History		
Revision	Date	Description
1	10/03/2017	Initial Release

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Introduction to the Scoring System

What is the FIRST Tech Challenge Scoring System?

The *FIRST* Tech Challenge Scoring System is a software program that has multiple functions to allow you to input and track vital information at an Event. The System allows a Scorekeeper to generate and track the following:

- ✓ Team Information,
- ✓ Sponsor Information,

- ✓ Match schedules,
- ✓ Match results, and
- ✓ Alliance Selection for Elimination and Final Rounds.

This software will also allow you to display Sponsor information and Team Match results to the Team and the spectators. This Manual will go through step by step instructions on how to run the program correctly and efficiently.

This guide is Part II the Scorekeeper Manual. Be sure to read read the Scorekeeper Manual Part I to understand the requirements and responsibilities of the Scorekeeper role.

How to Use the Scoring System at League Events

A League is a group of Teams that compete together in a series of Meets. A Meet is a one-field competition that uses the same field and game as other events. A Meet is approximately 3-4 hours long, including set-up, inspections, five or six matches per Team, and tear down. There are no Alliance Selections, Semi-Finals, Final Matches, Judging or Awards.

The Scoring System has been designed to carry over scores from one meet to another within a particular League. This function allows the system to only carry over the top ten best scores when going into the League Tournament. The sections below will provide the specific steps that must be taken in order to carry over the results from one Meet to another within a League.

At each League Meet, all the Qualifying Points and Ranking Points for all the Matches are exported from the Scoring System along with the Team information. When the Teams are imported into the Scoring System for the next Event, that data comes with it. The overall Qualifying Points and Ranking Points are displayed as part of that Event, but are not used in any of the League Meets other than to be collected. When the data is imported into the Scoring System for the League Tournament, however, the Scoring System takes the top ten values for Qualifying Points and the Ranking Points associated with those top 10 Matches. Thus, each Team starts out at the League Tournament ranked by their top ten League Meet Match results. For example:

Team 1234					
Meet 1		Meet 2		Meet 3	
QP	RP	QP	RP	QP	RP
1	10	2	40	2	50
0	0	0	10	2	60
2	30	2	30	2	60
0	40	0	120	2	120
2	30	2	40	1	120

This example shows the Qualifying Points and Ranking Points from 3 separate Meets. The highlighted line items are the top 10 best Matches based on Qualifying Points.

Should a Team not have ten Match results, it will impact their initial standings at the League Tournament.

Regions using the League/Meet model need to follow a few important steps to ensure that the score and ranking results are carried over throughout the competition season.

- ✓ The Event Type must be chosen as “Meet” at League Meets, and “League Tournament” at the final Event.
- ✓ At the first Meet, all Teams within the League should be imported/added into the Scoring System

- ✓ At the end of each Meet, the Team Match results must be exported and provided to the Affiliate Partner or Event Director to be used at the next Meet. Please note that this is a different file than what is being sent to *FIRST* after the League Tournament.
- ✓ At Meet 2 and all Meets thereafter, Team Match results from the previous Meet must be imported into the Scoring System after the Event is set up.
- ✓ At League Tournaments, import the Team Match data after the Event is set up. If the results were carried over from Meet to Meet correctly, this file should contain the top 10 best Matches based on Qualifying Points for each Team.
- ✓ League Tournament results must be sent to *FIRST* at the conclusion of the Event (Step 9 – Save Results and Send to *FIRST*).

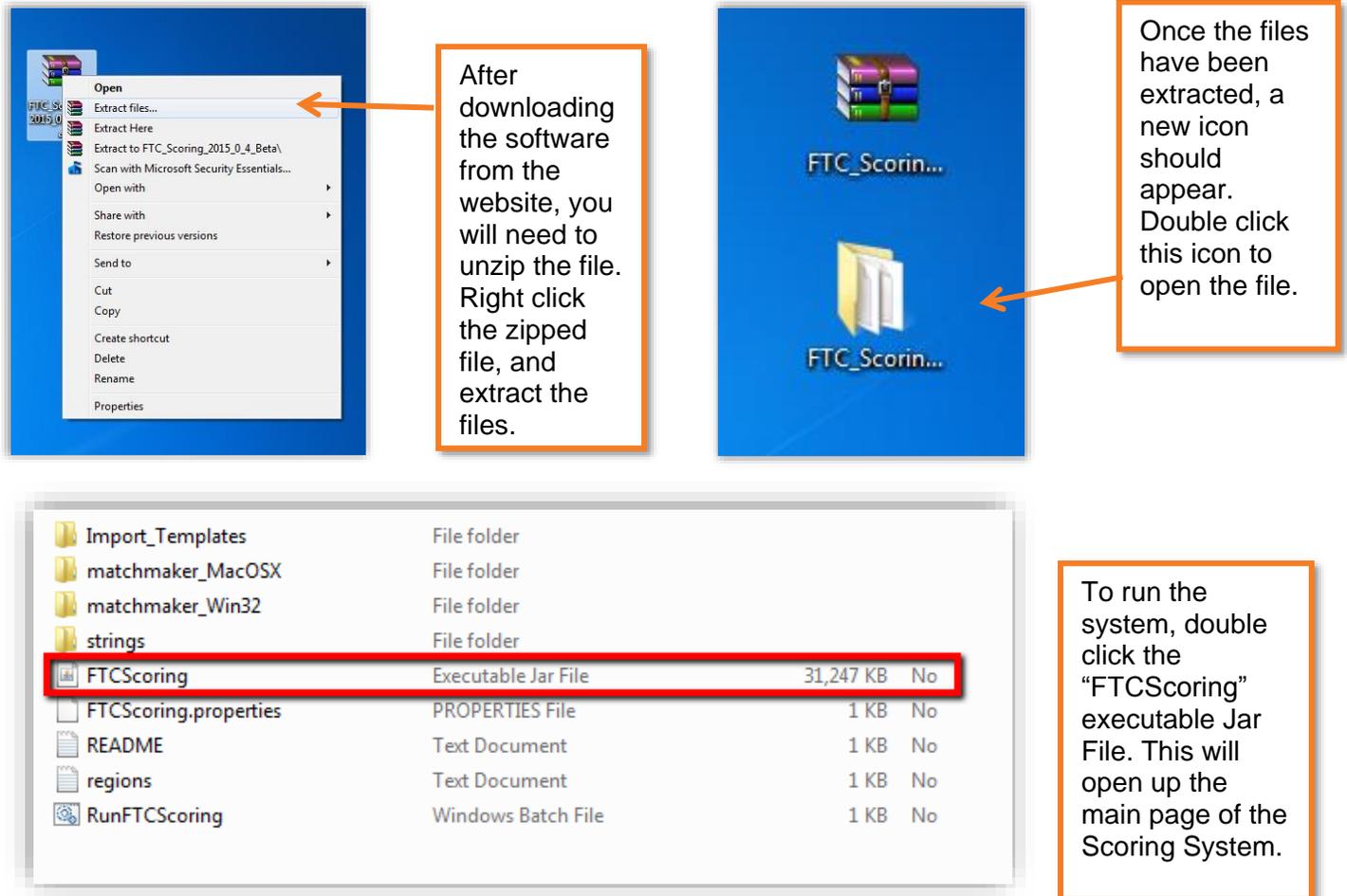
Download and Installation

The Scoring System will require Java 1.7 or higher. The application can be downloaded from:

- www.java.com

The Scoring Software is available for download from: <https://www.firstinspires.org/resource-library/ftc/volunteer-resources> under the Scorekeeper section, or in the Scorekeeper course in Schoology.

To install the software, unzip the downloaded file into the folder of your choice. *FIRST* suggests that users save the file to the computer's **desktop** to easily access the program. The software will be run from this directory.



Using the Application

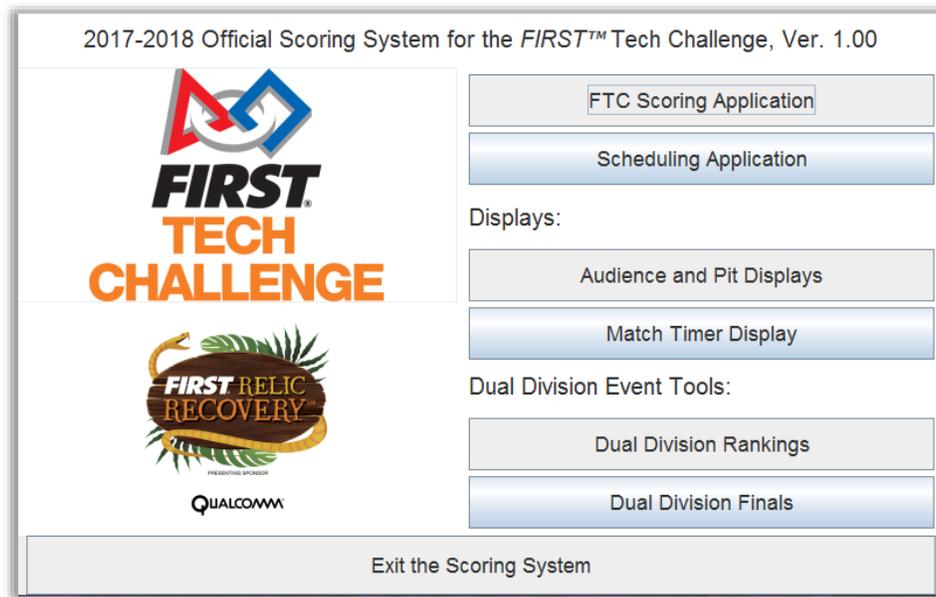
The main page of the scoring application allows you to access several functions of the system.

FTC Scoring Application – This is the main application where the Event, Team, and Match information is managed at the Event.

Scheduling Application – Used to generate judging and inspection schedule.

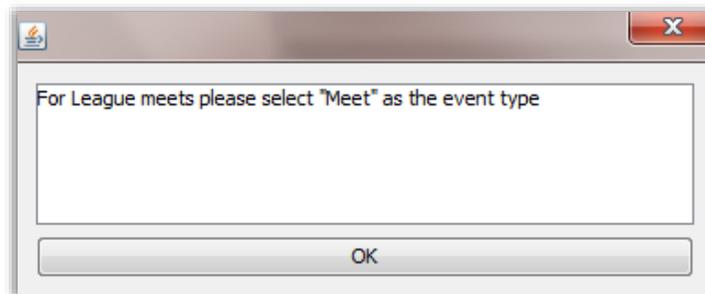
Displays – Used to manage Audience and Pit Displays.

Dual-Division Events – Used at larger, two division Events to determine the winner.



The Dashboard

Start the application by clicking on the “FTC Scoring Application” button. The system will instruct the user to use the “Meet” Event type for League Meet Events. Click “OK” to proceed to the Event setup screen.



Once the Event has been set up, the Dashboard will appear and you can proceed to enter Team information, sponsor information, run Matches, etc. Follow these steps in order. The status of each step will change to a green background with the words “complete” once that step is finished. If the step has been started but not completed, the status background will be orange and the label will say “In Progress”. Steps with no background and labeled “Optional” are not required, but highly recommended.

Pre-Event Setup		
1)	Modify Division Information	Complete
2)	Add/Modify Sponsors	Optional
3)	Add/Modify Teams	Incomplete
During the Event		
4)	Generate Qualification Matches	Incomplete
5)	Print Match List	Incomplete
6)	Enter Scores	Incomplete
7)	Generate Alliances	Optional
8)	Enter Awards	Incomplete
After the Event		
9)	Save Results to send to FIRST	Incomplete

League Meets: Only Steps 1-6 are required at League Meet Events.

Note: While Step 9 is not required for League Meets, Team data file with Match results must be exported at the end of each Meet to be used at the next Meet or League Tournament (Step 3 – Add/Modify Teams -> Export Teams).

League Tournament: All Steps 1-9 are required at League Tournaments.

Step 1 – Event Setup/Modify Division information

Before each Event, the Scoring System needs to be set up and ready for use during the Event.

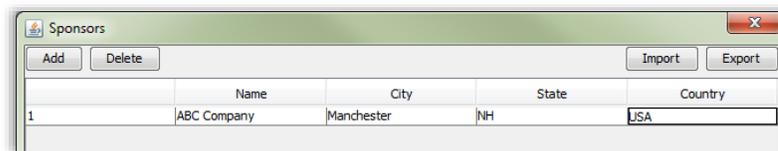
- Enter the name of the Event
- Choose the Event type:
 - League/Meet
 - League Tournament (for the final Event of the League)
- Select your Region
- Select the Event Date

Step 2 – Add/Modify Sponsor Information

The System is pre-populated with National Sponsor logos.



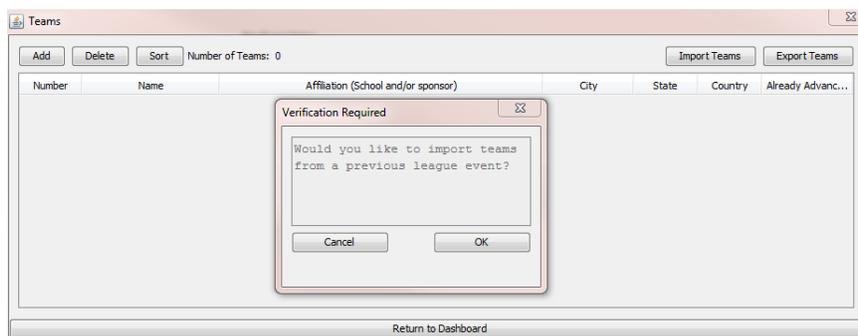
It also allows you to enter local Event Sponsors to display to the audience. List Sponsors by clicking the “Add” button. Make sure to spell the name of the sponsor correctly, as this will be displayed to all that attend the Event. You may want to list Sponsors in order of importance or level of support. Make sure to put your first preference on the first line.



The System display will automatically show the *FIRST* Tech Challenge National Sponsors on the first two screens. The Event Sponsors will be listed on the third screen. Each screen will display for 10 seconds and the loop will continue as long as the Sponsor display is running. The “Managing the Display Application” section of this Manual will provide better detail as to how to pull up the display functions.

Step 3 – Add/Modify Teams

When you click on Add/Modify Teams on the Dashboard, the system will ask if you wish to import the team data from a previous League event.



If this is the first Meet of the League, click “Cancel” and follow the steps below to add/import Teams.

For Meet 2 and all subsequent Meets, click “OK”. A new window will pop up instructing you to choose the file type. Select the “Scoring System Data File”, find the file in its saved location, and then click “OK”. This file contains the important Team information from previous League Meets, including the Qualifying Points.

Import Team List

First League Meet Event

It is important to import or add all Teams that will be participating in the League into the Scoring System at the very first Meet, even if they are not all going to be competing at the first Meet. This will ensure the Team data is carried over from Meet to Meet.

If you plan to import Teams into the System, format an Excel spreadsheet with the following fields:

Division, Team, Name, Affiliation, City, State, Country, Already Advancing? (Enter “Y”, “Yes”, “x” or “true” in this column if the Team is advancing. If the Team isn’t already advancing, leave it blank.)

	A	B	C	D	E	F	G	H
1	Division	Team	Name	Affiliation	City	State	Country	Already Advancing
2		1	1234 FTC Team	Trinity High School	Manchester	NH	USA	x
3		1	4321 FTC Team	Elm Street School	Manchester	NH	USA	
4		1	5138 FTC Team	Trinity High School	Manchester	NH	USA	
5		1	8493 FTC Team	Bakersville School	Manchester	NH	USA	x
6		1	2764 FTC Team	Bakersville School	Manchester	NH	USA	

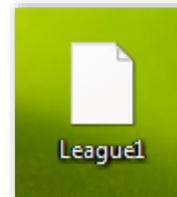
Click on “Import Teams” in the upper right corner. Choose “excel” and upload your file.



Subsequent Meet Events or League Tournament

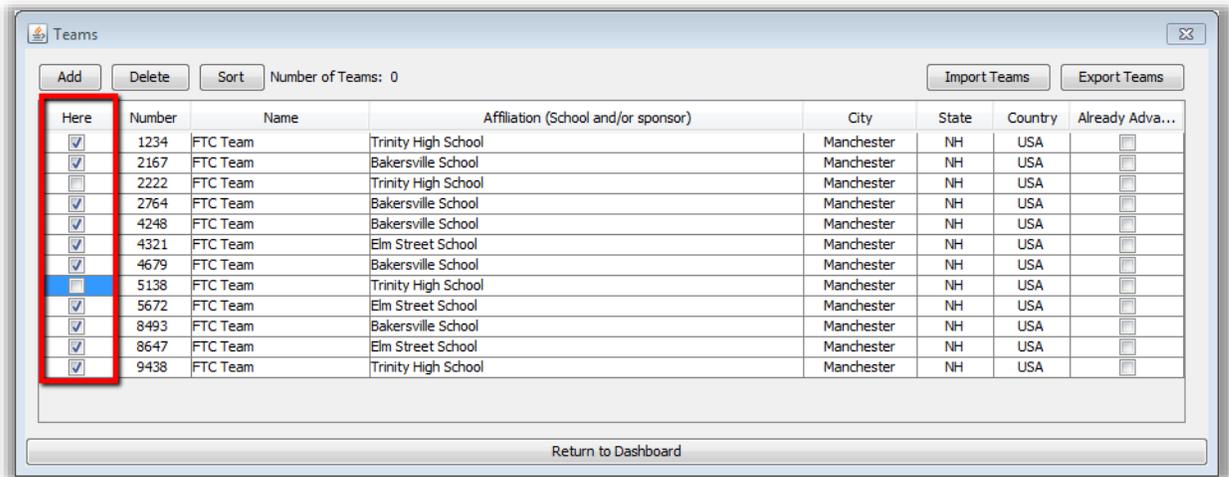
For Meet 2 and thereafter, or for League Tournaments, you will not import an Excel spreadsheet, and instead you will need to import the Team file from the previous Event.

To import the Teams file, click on Import Teams and select the Scoring System Data File option. Locate the file in its saved location. The file needs to be in a .txt format. If it is not in a .txt format, open the file with Notepad and then save it as a .txt. file.



Review the Teams list information. If a Team is not present at the Event, you can uncheck the “Here” box. The Scorekeeper should **NEVER** delete a Team if they are not competing, as they will lose the stats from the previous Meet. Instead the Scorekeeper should simply uncheck “Here” if a Team is not attending that particular Meet.

NEVER delete a Team if they are not competing at an Event. If the Team is not present, uncheck the “Here” box.



This will import the Team information plus the QP and RP from the previous Event. This process **MUST** be followed after each Event in order to track the data. To ensure the previous scores have carried over, click the “Rankings” tab from the system Dashboard.

Rank	Team	Name	QP	RP	Highest	Matches	Overall Rank	Overall QP	Overall RP	Overall Matches
1	1234	FTC Team	0	0	0	0	9	2	0	5
2	4679	FTC Team	0	0	0	0	3	6	0	5
3	9438	FTC Team	0	0	0	0	5	4	0	5
4	4248	FTC Team	0	0	0	0	2	8	0	5
5	2764	FTC Team	0	0	0	0	6	4	0	5
6	2167	FTC Team	0	0	0	0	7	4	0	5
7	5672	FTC Team	0	0	0	0	8	4	0	5
8	8647	FTC Team	0	0	0	0	10	2	0	5
9	8493	FTC Team	0	0	0	0	4	6	0	5
10	4321	FTC Team	0	0	0	0	1	10	0	5

Columns are blank; these are for the current Meet.

Rankings carried over from previous Meet.

Number of Matches from previous Meet.

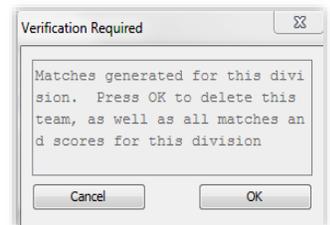
When the Teams surpass 10 Matches played at multiple League Events, the Scoring System will calculate the Teams top 10 Matches (Qualification Matches only, this does not include Semi-Final or Final Matches). This will be shown in the Rankings Tab:

Rank	Team	Name	QP	RP	Highest	Matches	Overall Rank	Overall QP	Overall RP	Overall Matches
1	8647	FTC Team	20	1200	0	0	1	20	1483	15
2	2222	FTC Team	18	1265	0	0	2	18	1595	15
3	8493	FTC Team	18	1237	0	0	3	18	1594	15
4	9438	FTC Team	18	1206	0	0	4	18	1551	15
5	5672	FTC Team	16	1227	0	0	5	16	1567	15
6	2167	FTC Team	16	1141	0	0	6	16	1477	15
7	4679	FTC Team	16	1104	0	0	7	16	1401	15
8	2764	FTC Team	14	1243	0	0	8	14	1602	15
9	1234	FTC Team	12	1254	0	0	9	12	1596	15
10	5138	FTC Team	12	1146	0	0	10	12	1411	15
11	4248	FTC Team	10	1235	0	0	11	10	1518	15
12	4321	FTC Team	10	1185	0	0	12	10	1485	15

Each Team has played a total of 15 Matches between 3 League Events. The Ranking points have only calculated the top 10 Match Scores.

Deleting a Team

If a Team needs to be removed because it is no longer competing in the League, or if it has been entered by mistake, you can delete it by selecting the Team by clicking on that row in the table, and then click the “Delete” button to remove the Team. If you need to remove a Team and have already generated Matches, you will receive a warning screen. Hitting “OK” will delete the Team as well as delete all the Matches for that division. Hitting cancel will leave the Team in the System.



For this reason, it is important to make sure that all of the Teams are present prior to generating the Match schedule. This avoids having to generate a new Match schedule, which can cause confusion if the previous Match schedule had already been provided.

After the Team list has been imported, you may utilize the sort function, which allows sorting the Teams by number, from lowest to highest. This can be helpful with large Events that have numerous Teams, as it allows you to locate a particular Team quickly.

If you need to both import from a spreadsheet and enter individual Teams, make sure that you first import from your Excel spreadsheet and then enter the individual Team names. Importing the list after entering the names will clear out the individual Teams that you have already entered into the system.

Number	Name	Affiliation (School and/or sponsor)	City	State	Country	Already Advanc...
1234	FTC Team	Trinity High School	Manchester	NH	USA	<input type="checkbox"/>
2167	FTC Team	Bakersville School	Manchester	NH	USA	<input type="checkbox"/>
2222	FTC Team	Trinity High School	Manchester	NH	USA	<input type="checkbox"/>
2764	FTC Team	Bakersville School	Manchester	NH	USA	<input type="checkbox"/>
4248	FTC Team	Bakersville School	Manchester	NH	USA	<input type="checkbox"/>
4321	FTC Team	Elm Street School	Manchester	NH	USA	<input type="checkbox"/>
4679	FTC Team	Bakersville School	Manchester	NH	USA	<input type="checkbox"/>

Manual Entry

When entering Teams into the system, the following information is required:

- Team Number
- Team Name
- Already Advancing – This field should be checked for any Teams that are already advancing to the next level of Competition. The list of Teams already advancing should be provided to you by the Event Director. These Teams will not be eligible for the Team advancement report.
- Division Number

The following information, although not required, is highly recommended:

- School
- City
- State
- Country

League Tournament

The Scoring System has been designed to allow Team data from two or more Leagues to be imported into the system for the League Tournament. This function allows the top 10 rankings for each Team to carry over from each Meet (as long as the previous step has been followed) into the League Championship Event. In order to do this, the files from the last meet for each League must be provided to the Scorekeeper. The Scorekeeper will then import each list using the “Import Teams” function.

The function to import multiple Team lists is only available when the Event type “League Tournament” is selected.

Step 4 – Generate Qualification Matches

Once all Teams have checked in and entered into the System, it's time to generate Matches and the Match Schedule. An Event Director should ensure that enough time is allotted for all of the Qualification Matches that are planned for the Tournament. The minimum number of Matches at any Event is 5, and the maximum number of Matches is 6.

To allow sufficient time to reset the fields and line up the alliances, the cycle times - the time between Matches – are set to a minimum of 7 minutes. Cycle time can be increased as needed.

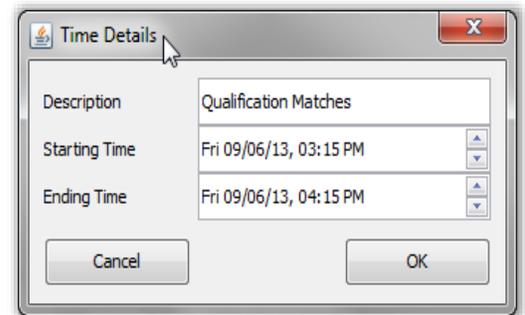
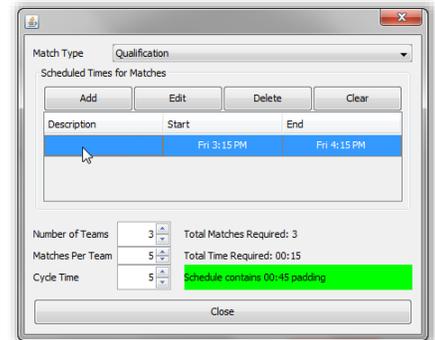
IMPORTANT: Generate Matches only after all Teams have checked in, passed inspection and are ready to play. NEVER generate and distribute the Match list ahead of time. Substitutions cannot be made for absent Teams.

Match Estimation Tool

Utilizing the Match Estimation Tool prior to generating Qualification Matches can provide a good idea about the Event flow and ensure that sufficient time has been allotted to Match plays.

From the “Matches” menu choose “Estimate Number of Matches”. When the tool launches:

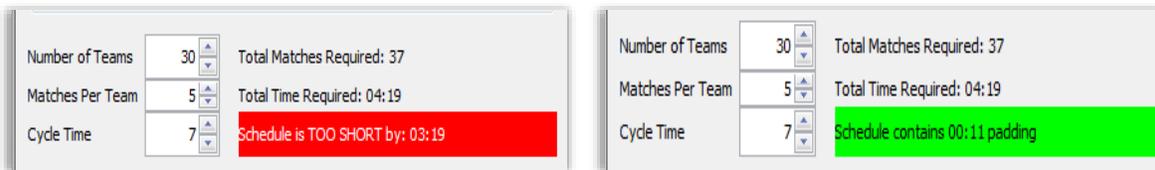
- Place your cursor in the empty “Description” box and click “Edit” to launch the “Time Details” dialog box.
- Type in the description (in this case, “Qualification Matches”), and adjust the start and end time accordingly (click on the M/D/Y and H/M and the up/down arrow, or type into the field). Click “OK”.
- Click “Add” to enter additional time periods, such as “Lunch Break” and more Qualification Matches.
- When the time periods are allocated, enter the following information into the time management tool (sample picture on the next page of this Manual):
 - The number of Teams (the initial setting will be the number of Teams currently configured in the Scoring System).
 - The number of Matches for each Team.
 - The cycle time (time between the start of one Match and the start of the next Match including setup, running of the Match, and the Scoring of the Match).



As you modify the values, the tool will re-evaluate the numbers. To the right of the entry boxes are three information statements:

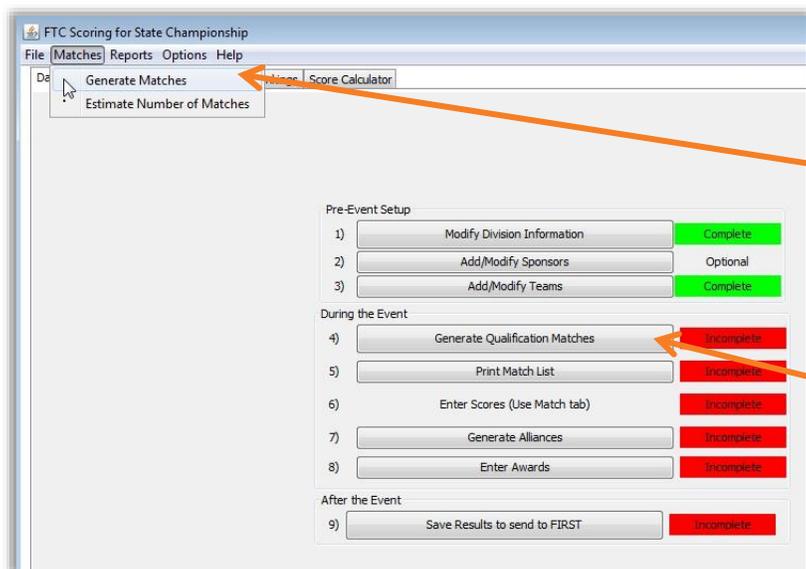
- Total number of Matches Required
- Time required to run all Matches (based on the cycle time).
- Status.

If you do not allot enough time for all of the Matches the System will show red and indicate the schedule is too short. If you have adequate time (or even extra time) the System will show green and indicate any extra time you have in the schedule.



Although the schedule should already have been created by the Event Director, this is still a best practice to use prior to generating Matches.

Once all of the Teams have checked in the Scorekeeper may generate Matches. There are two ways to generate the Qualification Matches:



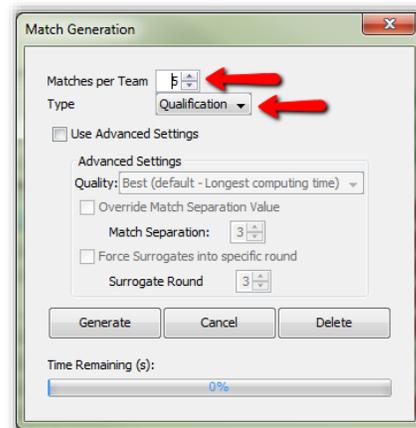
From the “Matches” Menu,
select “Generate Matches”

OR

Select “Generate
Qualification Matches”
from the dashboard.

After clicking “Generate Matches” either from the tab or the dashboard, the Match Generation dialog box will open.

- Enter the number of Matches (if necessary), making sure the type is “Qualification”. Click “Generate”.
- Optional: Use Advanced Settings to set “Quality” (the amount of randomization in the Match List). The options are:
 - Best: (Default) This option provides the best randomization but takes the most time.
 - Good: This option balances randomization of the Matches and the time it takes the System to generate the Matches.
 - Match Separation: The number of Matches before a Team is in another Match.
 - Surrogate Match: This specifies what round the surrogate Matches are (if there are surrogate Matches).

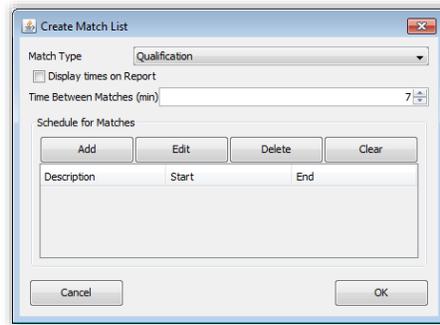


The program can take as long as two minutes to run Match Generation. The dialog box displays a timer and progress bar to indicate the estimated time remaining. At the end of the Match generation, a dialog box will appear stating that the Matches were successfully generated.

**** Match generation is not a function of the FIRST Tech Challenge Scoring System. FIRST Tech Challenge uses the MatchMaker Scheduling Software created by Idle Loop Software Design, LLC. This is the same algorithm used by FIRST Robotics Competition.**

Step 5 – Print Match List

From the dashboard, click on “Print Match List” to print Match Schedules (Minimum 20 copies). The following dialog box will appear:



You have the option to display times on the Match list, however the default is that times will not display on the Match list. **It is important that you do not print times on the lists that are distributed to Teams.** This can cause confusion if Matches run ahead of or behind schedule. If the Event Director chooses to print the times on the Match List, it is important that Teams be made aware that the time is “an estimate only” and to rely on the Match number to know when they will be called, rather than watching the clock. Match lists with times should only be distributed to Field personnel.

Click “OK”. The Match List is generated in HTML format and will automatically open in an internet browser window. Print the report from the browser window.

Distribute the list as follows:

- 1 copy for the Scoring Table.
- 1 copy for each Field Control Volunteer.
- 1 copy for each Queuer.
- 1 copy for each Team.
- 1 copy for the Affiliate Partner/Event Director.
- 1 copy for each Judge or Judge pair.
- 1 copy for the Judge Advisor.
- 1 copy for the Judge Assistant.
- 1 copy for each Referee.
- 10-15 extras.

Step 6 – Enter Scores

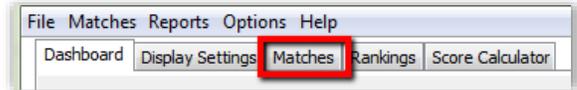
After the Match is concluded, the Referees will score the Match on Scorings Sheets. The Head Referee gathers input from each Referee and presents one set of Scoresheets (one sheet for the Red Alliance and one for the Blue Alliance) to the Scoring table. The Scorekeeper should take a quick look at the Scoresheet before the Referees go back to the Field. If there is a question about a number or a mark, the Scorekeeper should consult the Referee and confirm the information. The Scorekeeper keeps the handwritten sheets in case there is a question or concern about the Match later in the day. The Scorekeeper should keep the Scoresheets until the end of the Event, making sure to keep the Qualification sheets separate from the Elimination Match Sheets.

During the course of the Qualification Matches the Judge Advisor or Judge Assistant may ask for the Match results report or Rankings Report to support the Judging process. These requests need to be honored as quickly as possible to allow the Judge deliberation sessions to stay on time; however, it is important to give the entering of the Match Scores priority.

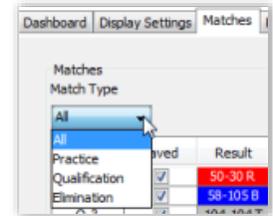
The handwritten sheets do not calculate Scores. They will indicate the Match number, which Teams competed in a Match, the number of scoring elements completed, and information about the number of Penalties. The

Scoring System calculates the score based on the Scorekeepers entries. It is important to work with the Head Referee to make sure all boxes on the sheet are filled in properly, even if it is with a zero. If there are questions about a Match Score, the Scorekeeper can (and should) verify the information prior to entering the score.

To enter the scores, click on “Step 6 – Enter Scores” on the Dashboard, or choose the “Matches” tab to display the Match input screen.



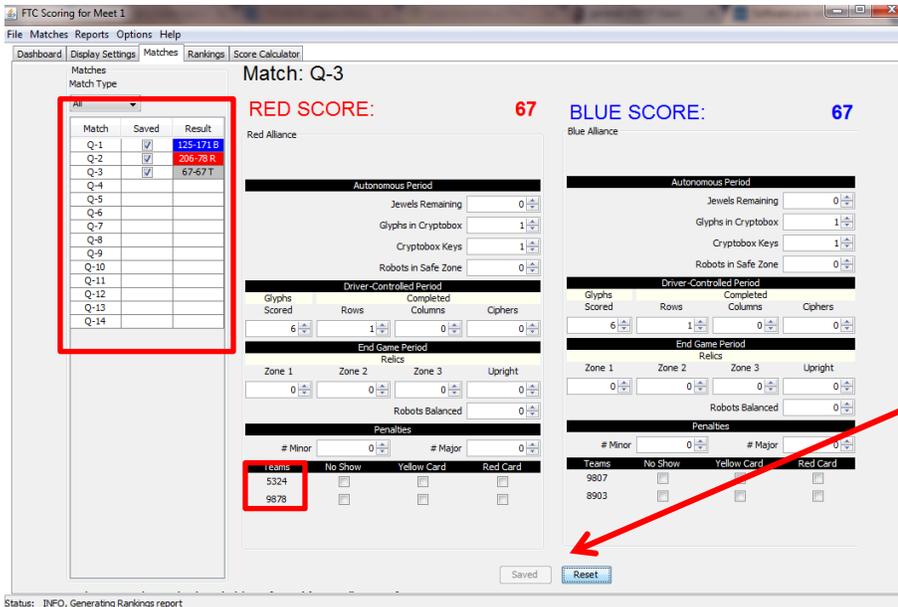
Before entering the Match Score, make sure that the correct Match type is selected (Practice, Qualification, or Elimination). Click on the dropdown to adjust if needed. Make sure to select the appropriate option prior to entering Scores. The score entry screen is divided into 4 distinct sections:



- Autonomous Period
- Driver-Controlled Period
- End Game Period
- Penalties

Click on the Match number prior to entering the Match Scores. In the example below, you can see that the 3rd Qualification Match has been entered, therefore the Scorekeeper needs to click on Q-4 before entering the scores for the next Match.

Note that with each Match the bottom of the screen will pre-populate the Teams playing that particular Match, based upon the previously generated Match list.



Once all of the Scoring information is entered and confirmed, click “Save” to commit the Score for that Match. The “Matches” table will be updated with the Match results and will indicate that the Match is saved. The “Reset” button will reset the Score to the last saved Score or to zeroes for an unsaved Match.

The winning alliance color is highlighted in the Result column. A tie is indicated by a gray color and the letter “T” after the score.

Change or Correct Scores

It is important to ensure that the scores have been finalized prior to saving the results. However, if any corrections must be made after the scores have been saved, you can highlight that particular Match, make the necessary edits, and click “Replace” to correct the Scores for that Match.

Score Calculator

If the Scorekeeper needs to quickly calculate a score without changing the scores already entered for each Match, the Score Calculator can be used. This feature looks exactly like the Matches page, however the results do not save to the System

Yellow Card/Red Card

Yellow or Red Cards may be given to a Team during Qualification Matches, or Alliance during Elimination Matches. These are entered by checking a box. Please see the Game Manual Part II for additional information on which offences warrant a Yellow or Red Card.

NOTE: Yellow Cards carry over in Qualification Matches, but are cleared when a Team moves into Elimination Matches.

End Game Period		
Relics		
Zone 2	Zone 3	Upright
0	0	0
Robots Balanced		0
Penalties		
0	# Major	0
No Show	Yellow Card	Red Card
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If a Team received a Yellow Card in one Match and has been issued a second Yellow Card in a subsequent Match, then the Team will receive a Red Card.

Step 7 – Generating Alliances

This step does not apply to League Meets, but does apply to League Tournaments. Alliances are created after all Qualification Matches have been scored. Click “Generate Alliances” from the Dashboard. The Alliance Selection Interface will display.

Team	Rank
952	8
2	7
5	5
1234	6

Alliance	Captain	Choice 1
1	27	0
2	995	0
3	672	0
4	5678	0

Configured as:
 Alliances: 4
 Teams Per: 2
 Teams in Div: 8

During Alliance selection, each Captain will invite another Team to be on their Alliance. The Software will automatically begin with Alliance 1 Captain. In this example, Team 27 is Alliance #1. They will be the first Team to extend an offer to another Team to create their Alliance.

Team #27 extends an offer to Team #2. In the Scoring System, select Team #2 and click the appropriate button to “Accept Invitation” or “Decline Invitation” based on the response of that Team.

Selection Results
Selected Alliances

Alliance	Captain	Choice 1
1	27	0
2	895	0
3	672	0
4	5678	0

Available Teams

Team	Rank
952	8
2	7
5	5
1234	6

Accept Invitation
Decline Invitation
Make Unavailable
Undo Last Selection

In this case, Team #2 has accepted the invitation, and has been added to the “Selected Alliances” section of the Scoring System. The Scoring System will automatically move to the next Alliance. Follow this process until all selections have been made and then click “Generate Alliances” to save the Alliance selections and to generate the initial Elimination Matches. If at any point when entering Alliance selections an error is made, the last action can be reversed using the “Undo Last Section” button. This button will only be active when an action can be undone.

Selection Results
Selected Alliances

Alliance	Captain	Choice 1
1	27	2
2	895	0

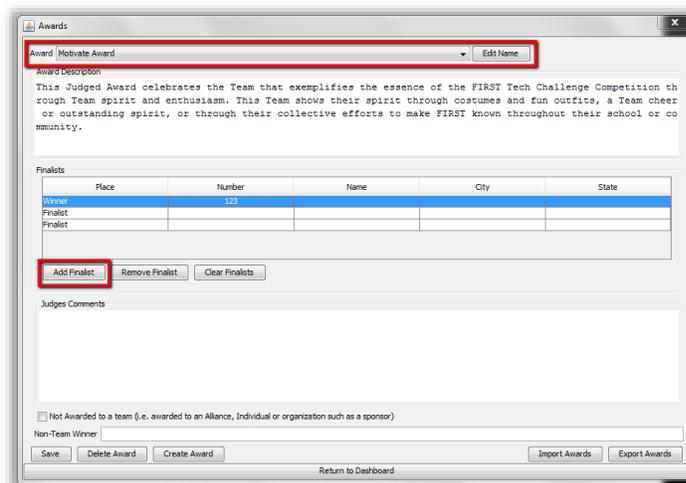
NOTE: For Tournaments with 21 or more Teams, the Scoring System will automatically generate Alliances with three Teams. Tournaments with 20 Teams or less will have Alliances with 2 Teams each. A column titled “Choice 2” will appear next to “Choice 1”. When all of the “Choice 1” Teams are populated, the System will then move on to Alliance 1, Choice 2, and the process is repeated in order until all Alliances have been chosen. This matches the FIRST Tech Challenge Alliance selection Rules and cannot be overridden in the Software.

Tournaments with 20 Teams or less will have 2 Teams per Alliance.

Tournaments with 21 or more Teams will have 3 Teams per Alliance.

Step 8 – Entering Awards

This feature does not apply to League Meets as no Awards are given at League Meet Events. This is an optional feature for League Tournaments, and may or may not be used at the Tournament. To enter each Award, select the Award from the dropdown menu. Click “Add Finalist” to add each Finalist and the Winner of the Award. Click “Save” after entering each Award to save the results.



The scripts from the Judges can also be inputted into the system through this screen. This can be copied and pasted, however the person entering the scripts must be sure not to leave blank spaces or separate the text by hitting the return key. For example:

Award: Promote Award

Award Description
The Promote Award is given to the Team that is most successful in creating a compelling message for the public designed to change our culture and celebrate science, technology, engineering and math. The FIRST Tech Challenge Public Service Announcement Video was evaluated by the Judges to determine the winner of this Award. Teams must present a thoughtful and high-quality video which appeals to the general public and best exhibits this year's topic of "This is how I plan to pay FIRST forward..."

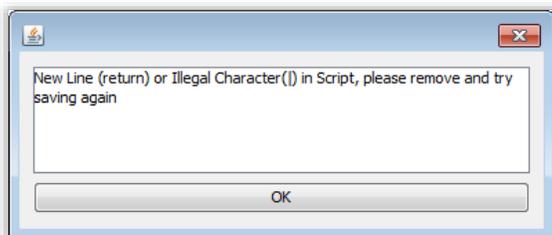
Place	Number	Name	City	State
Winner	1234	FTC Team	Manchester	NH
Finalist	3456	FTC Team	Bedford	NH
Finalist				

Judges Comments
This is where the Judges' comments go.
This is what will be printed for the Emcee/Game Announcer to read in the Awards script.

Buttons: Add Finalist, Remove Finalist, Clear Finalists, Save, Delete Award, Create Award, Import Awards, Export Awards, Return to Dashboard

In this example, the return key was used after each sentence. There is also a space in front of the first sentence.

Having the extra spaces will result in the following error message:



In this example, the same text is entered; however, the extra space in front of the paragraph has been removed. The extra spaces after each sentence have been removed. The text can now be saved in the system to be generated on the Award Scripts report from the Scoring System.

Award: Promote Award

Award Description
The Promote Award is given to the Team that is most successful in creating a compelling message for the public designed to change our culture and celebrate science, technology, engineering and math. The FIRST Tech Challenge Public Service Announcement Video was evaluated by the Judges to determine the winner of this Award. Teams must present a thoughtful and high-quality video which appeals to the general public and best exhibits this year's topic of "This is how I plan to pay FIRST forward..."

Place	Number	Name	City	State
Winner	1234	FTC Team	Manchester	NH
Finalist	3456	FTC Team	Bedford	NH
Finalist				

Judges Comments
This is where the Judges' comments go. This is what will be printed for the Emcee/Game Announcer to read in the Awards script.

Buttons: Add Finalist, Remove Finalist, Clear Finalists, Save, Delete Award, Create Award, Import Awards, Export Awards, Return to Dashboard

Step 9 - Event Score Results

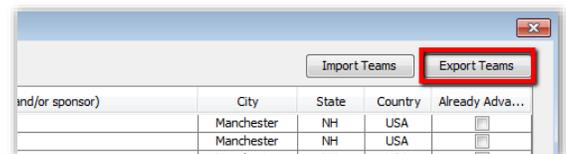
The Event type determines what should be done at the conclusion of the Event.

League Meets

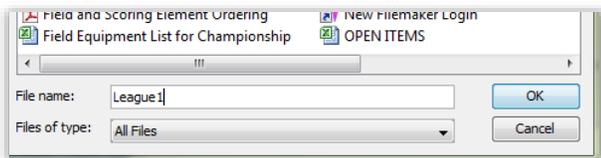
After each League Meet, the Scorekeeper shall export the Team file and provide it to the Affiliate Partner or Event Director to be used at the next Meet or League Tournament, if it is the last Event.

On the Dashboard, go to Add/Modify, and then click on “Export Teams”.

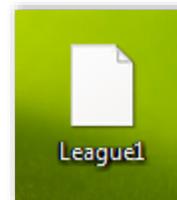
After the first League/Meet Event concludes, click on Add/Modify Teams from the dashboard to pull up the Team list. Click “Export Teams” to start the process to carry over the data.



Save the data in the folder of your choice:

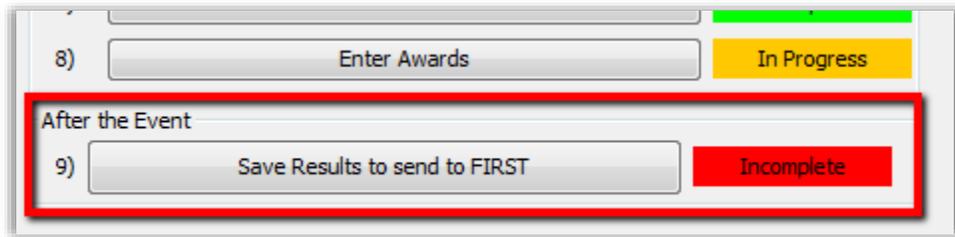


After saving the file, double click it to open, the file will need to be opened with Notepad and saved as a .txt file.



League Tournament

It is important to save the Event results and send them to *FIRST*. At the conclusion of the Event, make sure to save the Event results. From the Dashboard, click “Save Results to send to *FIRST*”.



Save the appropriate file. The Event Director may have the results saved to a specified Scoring Computer, or to a thumb drive. The results will be saved in a .zip file.

Next, rename the file by right-clicking on the file and clicking “Rename”:

- Add 2 letter State (e.g. AK for Alaska)
- Add date of Event
- Add the name of the Event

For the example above, the original name of the file was “FTC_data_Event_1”. After renaming the file it should read “AK_11-19-2017_League Tournament”.



Once the file has been renamed, send the results to *FIRST* by logging into your Schoology account. Navigate to the Scorekeeper course and click on “Submit Event Score Results Here”. Should you have any difficulties submitting the score results via the Scorekeeper course, you may email FTCTrainingSupport@firstinspires.org.

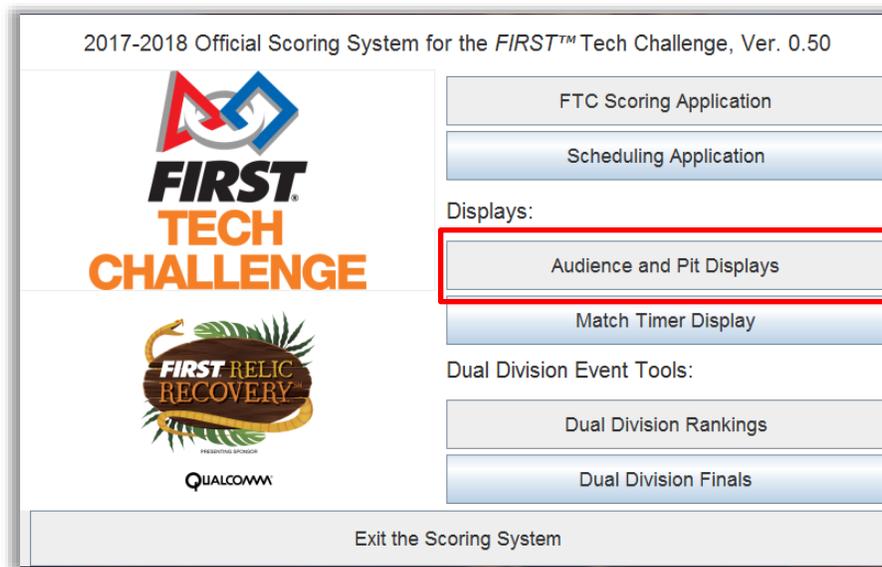
Managing the Display Application

The Audience and Pit Displays are the main method through which the Teams and the Audience receive information about what is happening in the Competition. The display application is configured at startup on the target computer and is controlled remotely by the Scoring System. This section describes how to control each application.

The display controls are on the tab labeled “Display Settings”.

The Audience Display and Pit Display applications are controlled by one set of controls. The options will differ when the Event is in the Practice/Qualification period and the Elimination period as described in the sections below.

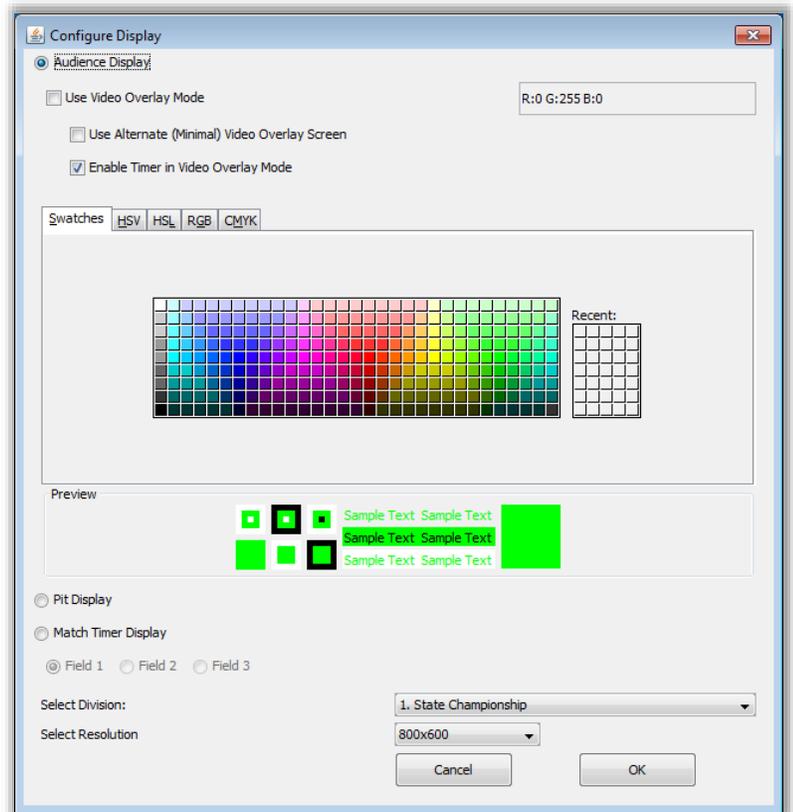
Choose “Audience/Pit Display” from the main Scoring System page to start the display screen,



The next screen will give you the option to choose either the Audience Display or Pit display radio button. Choose the appropriate display for your needs. This screen also provides a function to display a partial or full green screen, allowing video feed to play in conjunction with your data display or on its own.

Display Options

The Audience/Pit Display will default to the Sponsors screen. It will also display any of the additional Sponsor information that you had entered previously. If you would like to change what is being displayed to the audience, you can do so by going into the “Display Settings” tab from the Scoring System Dashboard. Here you will be able to choose what you would like to be displayed to the audience or in the Pit. Look through the following diagram and key for a list of display functions available through the Scoring System.



The screenshot displays the 'FTC Scoring for State Championship' application window. The 'Display Settings' tab is active and highlighted with a red box. The interface is divided into three main sections:

- Audience Display Settings:**
 - Event Phase: Qualification
 - Match being Played: Q-1
 - Match Results to Display: Q-1
 - Match Timer: 2:30 (with Start, Abort, Pause, and Reset buttons)
 - Select Screen to Display:
 - 1 Pre-Match Information
 - 2 Match Timer
 - 3 Match Results
 - 4 Team Rankings
 - 5 Announcement
 - 6 Sponsor Listing (selected)
 - 7 Blank Screen
 - 8 Alliance Selection
 - 9 Elimination Ladder
 - 10 Awards
 - Field Selection: Field 1 (selected)
 - Buttons: Open timer in separate window
 - Text: it Display will show: Team Rankings
- Awards Setting:**
 - Award: Motivate Award
 - Options: Show Intro (selected), Show 3rd Place (includes intro), Show Finalists (includes Intro), Show Winner (includes intro & both finalists)
- Announcement:**
 - Alliance Timeout
 Time Remaining: [input field] [Update]
 - Use Announcement Timer: [checkbox]
 - Initial Value: (h:min:sec): 0 : 3 : 0
 - Announcement Timer: 0:03:00 (with Start, Abort, and Reset buttons)

Status: INFO, Retrieved from file key=-1998357136,-1062712759

Display Settings Key

Display Settings Key		
	Audience Mode	Description
1	Pre-Match Information	This display shows the introductory information for the Match. This includes the Match information, and both the Team name and number. This display also includes a mini rankings display to give the audience a summary of the rankings during the Qualification Matches. During the Qualification Matches, the Team's current rank is shown in parentheses before the Team name. During the Elimination Match, the Alliance number will be placed before the name of the Team Captain.
2	Match-Timer	This display shows a summary of the Match information, the Team numbers and a timer to indicate the status of the Match. This display can be configured as a standard display that occupies the entire display application or as a video overlay that puts the information at the bottom portion of the screen and provides a large colored background that can be overlaid onto a live video feed. This Manual does not go into details on overlaying videos.
3	Match Results	This display is similar to the "Pre-Match Information" mode with the addition of final scores and additional Match information. That Match information includes an indicator for the winning Alliance and information about the penalties that occurred. During the Elimination Matches, the results will also indicate how many matches each Alliance has won and who is leading the series.
4	Rankings	This display shows a scrolling list of the Team rankings in ranked order. The information includes the ranking, the Team name and number, the Teams Qualification and Ranking Points, and the number of Matches the Team has completed. The display also shows the results of all the Matches that have been Scored. A summary of the number of Qualification Matches, the number of Matches completed, and the number of Matches each Team will play displays at the bottom.
5	Announcement	This displays a simple text message that is defined in the Announcement panel. If the message needs to be changed, it can be updated by clicking the "Update" button.
6	Sponsor Listing	This display is split into two screens that change every 30 seconds. The first screen will show the FIRST National Sponsor logos. This display is not modifiable by the user. The second screen on the Sponsor Display shows the information listed on the "Sponsor Info" tab as text. It is not currently possible to display the local Sponsor logos.
7	Blank Screen	The display screen will be blank.
8	Alliance Selection	The display shows the progress of the Alliance Selection. It will display two tables. The left side shows the current Alliances and empty slots that need to be filled. The right side shows the Teams that are still available to be selected in numerical order. The rank of the Team is shown in parentheses after the Team number.
9	Elimination Ladder**	This display shows a tree of the Elimination Series. At the bottom it shows the Semi-Final Matches. As Winners are determined, they are displayed in the appropriate Alliance in the Finals. After the Division or Event Winner is determined, that Alliance is shown above the Elimination Ladder.
10	Awards	This display shows the Award information.

**The Elimination Ladder will only be available when "Elimination Rounds" are selected. This is not applicable to League Meets.

Important Notes:

- Turn off the Rankings displays when Elimination Matches are in progress. Not doing so may cause the Winner of the Semi-Final Matches to be announced in the Pit Area prior to being announced on the Playing Field.
- The Pit Display application will show the “Elimination Ladder” display unless the “Alliance Selection” or “Rankings” displays are selected.

Selecting and Controlling the Display

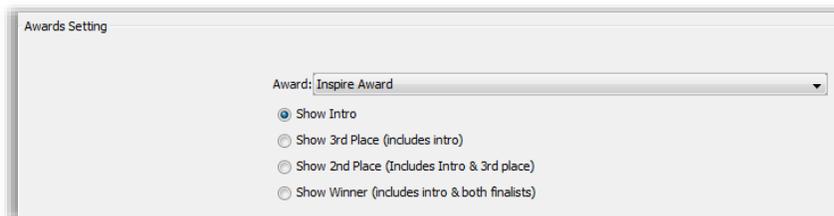
Selecting a display mode is as simple as selecting the radio button next to the mode in the “Audience Display Settings”. The “Pit Display Settings” will update as the audience modes are changed.

For Match-related modes, set the “Event Phase” appropriately to populate the “Match Being Displayed” with the correct list of Matches. The user can then select the appropriate Match that is being played and the Match that will be used when Match results are displayed.

The Match being played will be displayed if the Pre-Match information, or Match Timer selections are selected. This allows the Scorekeeper to prepare to show results for a Match while another Match is being played.

Awards Display

In the Display Settings tab are the controls for the Awards display. Each Award is listed in the dropdown menu box, and radio buttons will allow you to choose what you would like to display.



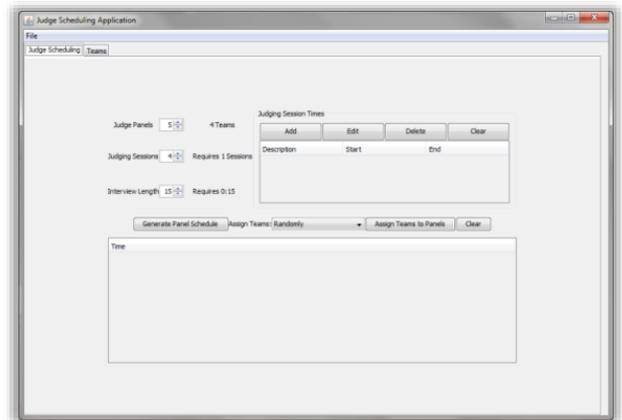
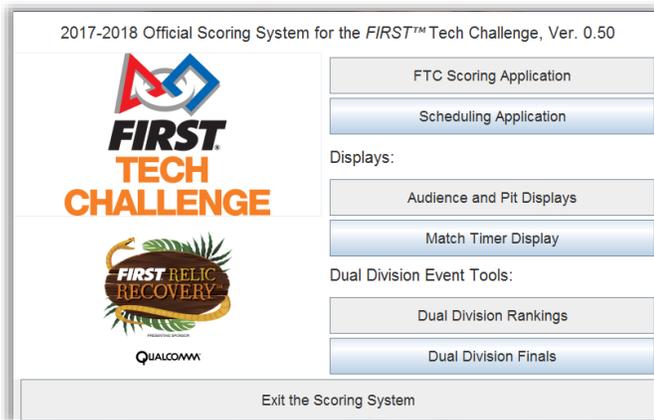
Clicking “Show Intro” will show only the name of the Award being announced. Clicking “Show 3rd Place” shows the 3rd place runner up, “Show 2nd Place” shows the 2nd place and 3rd place runner ups, and finally “Show Winner” Shows the 2nd and 3rd place runner ups, along with the winner of the Award.



Generating Judging & Inspection Schedules

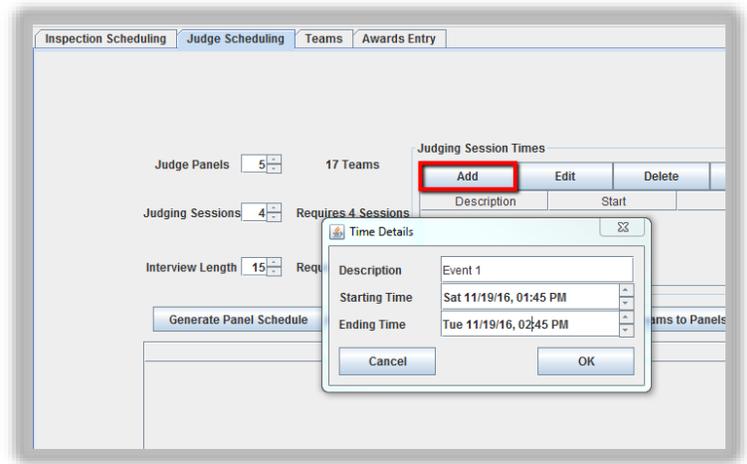
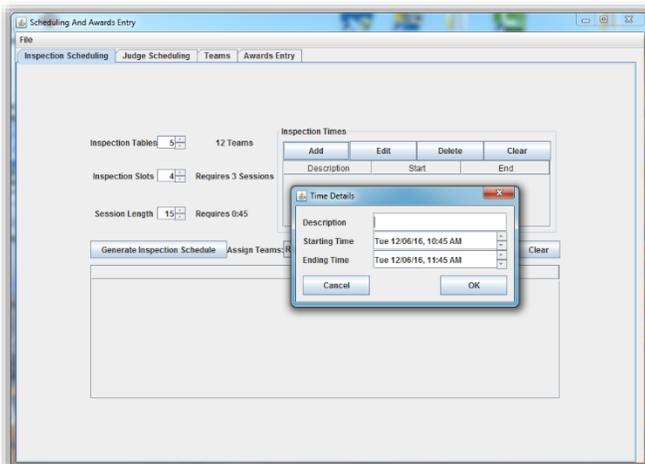
The Scheduling Application is an optional function of the Scoring System. This tool will allow you to create a Judging and/or Inspection Schedules once you have loaded all of the Team information into the Scoring System. This tool might be better suited for League Tournaments. There is no Judging at League Meets and inspections can easily be done without a formal schedule.

To use this application, choose “Scheduling Application” from the main Scoring System page.



When the Scoring Applications opens, select the tab for either the Judging or Inspection Scheduling (or both) to create the schedules. The Inspection Schedule allows you to enter the number of inspection tables, inspection slots, and the length of time for each inspection. The Judging Scheduling will allow you to enter the amount of Judging panels, Judging Sessions, interview length, and the allotted timeframe for Judging to take place.

Once you have the Schedule Application open, enter the times for Judging and the name of the Event. Click “Add” in the Judging Schedule Application to enter this information.



Once you have entered your information, click “Generate Panel Schedule”. This will create your Judging or Inspection Schedule, but will not automatically schedule Teams. You have the option to assign Teams randomly, by ascending Team number or by descending Team number.

Interview Length: 15 Requires 0:30

1 **2** **3**

Generate Panel Schedule Assign Teams: Randomly Assign Teams to Panels Clear

Time	Panel 1	Panel 2	Panel 3	Panel 4
02:15 PM	0	0	0	0
02:30 PM	0	0	0	0
02:45 PM	0	0	0	0
03:00 PM	0	0	0	0

Click “Assign Teams to Panels” to now have each Team scheduled for Judging sessions.

Time	Panel 1	Panel 2	Panel 3	Panel 4
02:15 PM	2487	3	7739	548
02:30 PM	24	85	2167	1357
02:45 PM	242	0	0	0
03:00 PM	0	0	0	0

Appendix A – Resources

Game Forum Q&A

<http://ftcforum.usfirst.org/forum.php>

Anyone may view questions and answers within the FIRST® Tech Challenge Game Q&A forum without a password. To submit a new question, you must have a unique Q&A System User Name and Password for your team.

Volunteers that apply for a specific volunteer role will receive an email from FTCTrainingSupport@firstinspires.org with their username and password to the forum. You will receive access to the forum thread specific to your role.

FIRST Tech Challenge Game Manuals

Part 1 and 2 - <http://www.firstinspires.org/node/4271>

FIRST Headquarters Pre-Event Support

Phone: 603-666-3906

Mon – Fri

8:30am – 5:00pm

Email: FTCTeams@firstinspires.org

FIRST Tech Challenge Event On-Call Support

*These numbers are available for event personnel only. Please **do not** call these numbers if you are a team looking for a ruling, a decision, or assistance. We trust that you will not misuse this resource.*

Day of Event Robot Control System Support: 603-206-2450

All other Day of Event support: 603-206-2412

FIRST Websites

FIRST homepage – www.firstinspires.org

[FIRST Tech Challenge Page](#) – For everything FIRST Tech Challenge.

[FIRST Tech Challenge Volunteer Resources](#) – To access public Volunteer Manuals.

[FIRST Tech Challenge Event Schedule](#) – Find FIRST Tech Challenge events in your area.

FIRST Tech Challenge Social Media

[FIRST Tech Challenge Twitter Feed](#) - If you are on Twitter, follow the FIRST Tech Challenge Twitter feed for news updates.

[FIRST Tech Challenge Facebook page](#) - If you are on Facebook, follow the FIRST Tech Challenge page for news updates.

[FIRST Tech Challenge YouTube Channel](#) – Contains training videos, Game animations, news clips, and more.

[FIRST Tech Challenge Blog](#) – Weekly articles for the FIRST Tech Challenge community, including Outstanding Volunteer Recognition!

[FIRST Tech Challenge Team Email Blasts](#) – contain the most recent FIRST Tech Challenge news for Teams.

[FIRST Tech Challenge Google+](#) community - If you are on Google+, follow the FIRST Tech Challenge community for news updates.

Feedback

We strive to create support materials that are the best they can be. If you have feedback about this manual, please email ftcteams@firstinspires.org. Thank you!

Appendix B: Scoring System Setup Instructions

The Scoring System computer used for controlling the Scoring Software requires the following minimum:

- A personal computer with:
 - Windows XP or higher; or Macintosh OS X 10.5 or higher.
 - 1024x768 Resolution monitor.
 - A mouse (highly recommended over a track pad).
 - Wired Ethernet connection (to the FTC_PIT router).
 - Audio output wired into the Event A/V system.
 - Sun Java, version 1.6 or higher.
- A high speed printer or a printer and access to a copy machine.
- Ethernet router (with UDP multicast not blocked) with enough ports to handle the Scoring computer and all displays.

Display Applications

Each computer used for the display applications should have the following:

- A personal computer with:
 - Windows XP or higher; or Macintosh OS X 10.5 or higher.
 - Wired Ethernet connection.
 - Sun Java, version 1.6 or higher.
- A large screen display or projector capable of 800x600 resolution (minimum)

Suggested Configuration

The following lists a typical configuration for the scoring table and displays:

- At the Scoring table:
 - Scoring computer.
 - Printer.
- In the Field area:
 - 1 or 2 computers running audience displays viewable by the audience.
 - 1 or 2 projectors and screens.
- In the Pit area:
 - 1 computer running the Pit displays.
 - 1 large screen monitor or projector.

If the Scoring System is used on multiple computers, the following network configuration is suggested:

- Ethernet router with the following unblocked:
 - UDP Multicast for displays:
 - Multicast group 239.25.87.103
 - Multicast Port 10387
 - FTP for display access to data including icons
 - FTP on port 8721
 - HTTP for access to the Scoring System by Teams
 - HTTP on port 8080

The setup must be to a router. Switches do not provide the ability to support multicast routing.

NOTE: If the Scoring application and display application are run on a single computer then no network connection is needed. The system will use UDP Broadcast using the address 127.0.0.1.

Appendix C: Event Checklist

Before the Event

Attend Scorekeeper Training

Night before the Event**

Install the Scoring System and display application on the correct computers

Turn on and test the Scoring System.....

Enter Team and sponsor information.....

Test all displays

Print referee score sheet.....

****Check with your FTA, Event Technical Director or Affiliate Partner to determine step has already been completed.**

Morning of the Event

Before Teams arrive at the Event

Turn on and set up all scoring electronics:

- Computers
- Projectors
- Displays.....
- Routers.....
- Printers

Start up the Scoring System

Ensure that all Team/sponsor information is entered correctly

Start Display Applications

Enable Sponsor Display.....

Work with Affiliate Partners to establish a time when Teams are declared “no show”

Work with Affiliate Partners to determine

- Number of Matches to be played in the Tournament
- Time schedule for the Matches

After All Teams Have Checked In:

Update Team Information as necessary

Add or delete Teams as necessary

Generate Matches

- **Important** – generate Matches only **AFTER** all Teams have checked in, and have been certified to play. **DO NOT EVER** generate and distribute the Match list prior these steps, as substitutions cannot be made for absent Teams.

Print Match lists:

- 1 copy for the scoring table
- 1 copy for each Field Control Volunteer
- 1 copy for each Queuer
- 1 copy for each Team (without times)
- 1 copy for the Affiliate Partner/Event Director
- 1 copy for each Judge/Judge pair
- 1 copy for the Judge Advisor
- 1 copy for each Judge Assistant
- 10-15 extras

Print Team Lists:

- 1 copy for each Queuer
- 1 copy for each Game Announcer/Emcee.....
- 1 copy for each Judge
- 1 copy for the Judge Advisor
- 1 copy for each Judge Assistant

Announcer Sheet

- 1 for each Game Announcer/Emcee

Print Web Page Instructions

Copies for each Team and additional as requested