

Science Olympiad Scoring Best Practices

By Alan Chalker

Overview:

This document is intended to provide guidelines and suggestions for handling scoring at Science Olympiad tournaments. It is based upon the processes and tools developed and used at the National Tournament for over a decade, but can be tailored for even the smallest regional tournaments. This document is broken into the following sections:

- Pre-tournament event supervisor preparations (page 2)
- Pre-tournament scoring room preparations (page 3)
- Day of tournament event supervisor operations (page 7)
- Day of tournament scoring room operations (page 9)
- Awards ceremony and results reporting (page 15)

General Philosophy:

Each aspect in the scoring process, from the initial raw points calculations to the final awards ceremony presentations should include multistep procedures that involve multiple sets of eyes and tools to help catch any errors. By including a series of checks and balances, the chance of a mistake by any one person impacting the final results is minimized.



Figure 1: The calm before the storm in a National Tournament scoring room

Assumptions and Additional Resources:

The scoring process at the National Tournament follows the National Scoring Guidelines (http://soinc.org/scoring_guidelines). There are variations of these guidelines and processes in use at some State and Regional Tournaments, which would require appropriate adaption of the tools and processes within this document. The Excel based scoring system in use is available at: <http://sourceforge.net/projects/soscoring/> The author is willing to provide some assistance and can be contacted at soscoring@chalker.org.

Pre-tournament Event Supervisor Preparations:

In the days and weeks prior to the tournament, event supervisors should:

- Obtain a CURRENT copy of the event rules from the tournament director. Note that the rules change from year to year, thus you must ensure you are using the current year's version.
- Read and understand thoroughly the event rules.
- Visit the National Science Olympiad website (www.soinc.org), in particular:
 - The individual event pages, which often contain links to event specific resources, including scoring spreadsheets for events that have complicated scoring formulas and impound checklists
 - The individual event FAQs (http://soinc.org/frequently_asked_questions) which contain official interpretations of questions about the rules
 - The clarifications page (http://soinc.org/official_rules_clarif) which contain official changes to the rules
 - The event supervisor resources page (<http://soinc.org/event-supervisors>) which links to the event logistics document providing guidance for each event
- Visit the appropriate State Science Olympiad website (http://soinc.org/state_websites) for State specific FAQs or clarifications
- Coordinate with the tournament director on items including:
 - Event scheduling
 - Event location
 - Materials and supplies needed for event
 - Volunteers needed
- Receive from the tournament director the event scoring spreadsheet prepopulated with team names / numbers and scoring guidelines / checklist (http://soinc.org/scoring_guidelines)
 - If possible, plan to bring a laptop computer with MS Office installed to the event, along with a USB thumbdrive.
 - Prior to the event, spend a few minutes playing around with the event scoring spreadsheet and checklist
- If required by your event, prepare a written test.
 - Note that in order to prevent a significant number of ties, tests should have at least twice as many points as the number of teams competing.
 - On the day of competition, since time is in short supply, consider formatting the test and answer sheet in ways to expedite scoring, such as:
 - Making every question worth the same number of points
 - Providing answer boxes all aligned with the same margin and spaced equally
 - Putting blank formulas for tallying scores up in the upper margin of each page

# correct this page	
<input type="text"/>	Part 1: <u>MagLev</u> History
<input type="text"/>	1. What university has partnered with the state to build a test track in Pennsylvania?
<input type="text"/>	2. What was the name of the first high-speed train?
<input type="text"/>	3. In what year was the first test track built?
<input type="text"/>	4. What does the acronym HSS stand for?
<input type="text"/>	5. How long was the track of the first test track in miles?
<input type="text"/>	6. In what year was the Japanese Shinkansen first introduced?

Figure 2: Example written test layout that allows for expedited scoring (partial)

Pre-tournament Scoring Room Preparations:

Physical Facilities:

The best location for a scoring room is in a pre-existing campus computer lab. The next best option is in a large conference room where computers can be brought in and spread around the room.



Figure 3: Typical National Tournament scoring room layout

Recommended equipment includes:

- ~12 computers (Windows PCs or Macs), each with
 - The latest version of MS Office
 - Dropbox client (see section below about this)
 - Adobe Acrobat
 - Internet access
 - External keyboards / mice (if using laptops)
 - Accessible USB port
 - Enough room for 3 chairs to be placed in front of the monitor without bumping into neighboring computers
- 2 network printers, accessible from the computers
 - At least 2 reams of paper
- A projector or large TV / monitor connected to one of the computers (alternatively a large whiteboard and markers)
- Office supplies
 - 1 stapler per computer
 - 1 box of extra staples
 - 2 boxes of pens (different colors)
 - 1 box of large rubber bands
 - 1 pad of Post it notes
 - 4 sheets of printable labels

- 60 manila folders (half Blue for division B, Crimson(Red) for division C)
- 60 extra large manila envelopes
- 3 large cardboard boxes (banker box style preferred)
- 2 three ring binders
- 1 three hole punch (or a ream of three hole punched paper)
- ~12 USB thumbdrives
- Printouts (55 copies of each)
 - Scoring guidelines / checklist
 - Evaluation forms / etc (as appropriate)
- Informational Hardcopies
 - Team / Coach contact info and homerooms
 - Event supervisor contact info
 - Event schedule
 - Copies of the official SO Rules Manuals
- Another room with tables and chairs for event supervisors to utilize to finalize grading / tabulate scores
- Volunteers to staff the scoring room (1.5x the number of computers available is a good ratio)

If the awards ceremony will be projecting the results, backstage at the ceremony location should be:

- 2 computers, same specs as above
- 1 printer connected to the computers (and at least 1 ream of paper)
- Appropriate cables / connections / etc to connect 1 computer to the projector / display

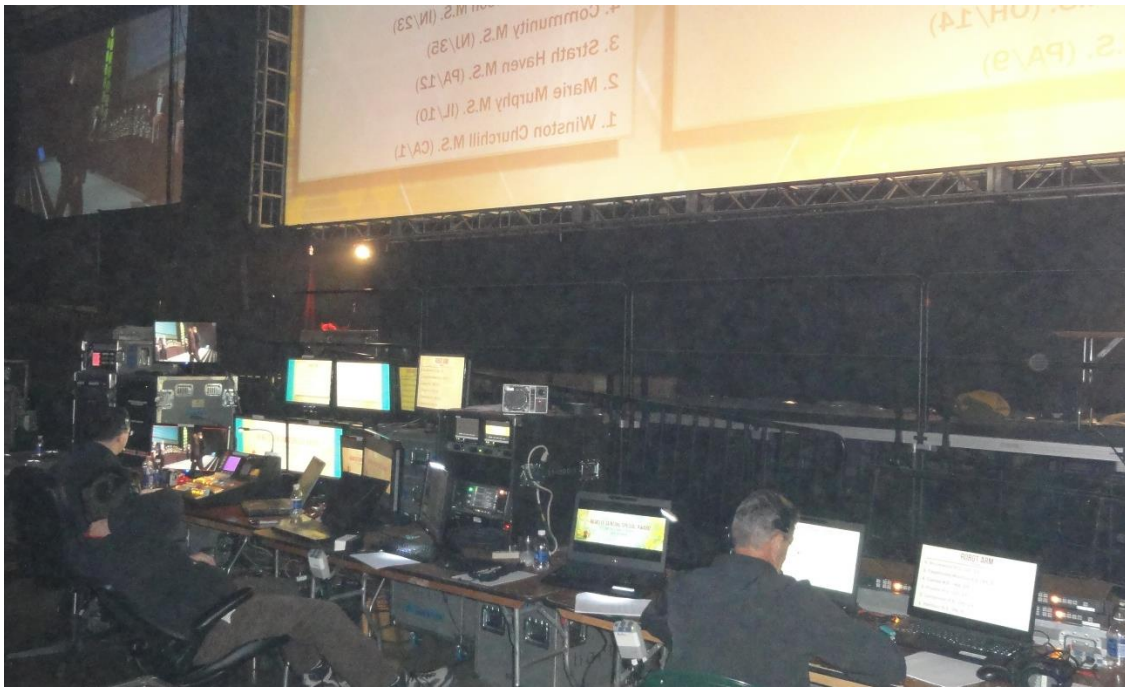


Figure 4: Backstage at a National Tournament awards ceremony

Electronic Setup

Note that anytime you open the scoring spreadsheet on a new computer, be sure to click 'Enable Content' in the security warning box to allow the embedded macros to run.

When the team names and events are finalized, for both Division B and Division C separately:

1. Printout the event names on the sheets of printable labels (1 event name per label)
2. Make a copy of the scoring spreadsheet with an appropriate name (e.g. SONT 2014 Div B Scoring System.xls)
3. Use the 'Setup' tab of the Excel spreadsheet to populate it with tournament specific information including:
 - a. Tournament name / year / division
 - b. HQ phone / location / email
 - c. Team names / states / numbers (click on 'Change # of Teams' if needed before entering the team info)
 - d. Event names and status (e.g. normal vs. trial / pilot) (click on 'Change event names' button to populate these changes after making them)
4. Create a standalone scoring blank sheet by clicking on the appropriate button on the 'Setup' tab and saving the resulting spreadsheet to a separate file (e.g. SONT 2014 Div B Blank Score Sheet.xls). Email this file to each event supervisor in advance of the tournament
5. If needed, also print out a version of the blank scoring sheet from the 'Printable Blank Scoring Sheet' tab

Setup Instructions:

1. Fill in only the information in the YELLOW cells. You may leave cells blank.
2. **Change # of Teams** button: only to change the number of team. You can change the state / name / status (e.g. Competed, No Show, DQ'd) directly below anytime.
3. **Change Event Names** button: only if necessary, as will delete all event data. You can change the names / type (e.g. Normal, Trial/Pilot, Not Run) at the right anytime.
4. **Create Standalone Blank Score Sheet** button: allows you to save a single generic score sheet for use by event supervisors.

Tournament Name	National Science Olympiad Tournament		
Year	2014		
Division	C	Change # of teams	Create standalone blank score sheet
# of Teams	60		
Tournament Specific Info	HQ Phone: 614-570-7251 HQ Location: Student Union, 2nd Floor Website/Email: soscoring@chalkers.org		
Team #	State	Team Name	Status
1	NY	Fayetteville-Manlius H.S.	Competed
2	NY	Columbia H.S.	Competed
3	CA	Troy H.S.	Competed
4	CA	Mira Loma H.S.	Competed

Event Names	Type
Anatomy and Physiology	Normal
Astronomy	Normal
BooMilever	Normal
Bungee Drop	Normal
Chemistry Lab	Normal
Circuit Lab	Normal
Compound Machines	Normal
Designer Genes	Normal
Disease Detectives	Normal
Dynamic Planet	Normal
Elastic Launch Glider	Normal
Entomology	Normal
Experimental Design	Normal
Forensics	Normal
Geologic Mapping	Normal
MagLev	Normal
Materials Science	Normal

Figure 5: Example scoring system 'Setup' tab screenshot (partial)

Dropbox (dropbox.com) can be used to transfer files and save backup copies automatically. To setup:

1. If you don't already have one, create a generic Dropbox account (separate from any personal account you may have) on their website.
2. Install the Dropbox desktop client on each computer used for scoring (all using the same account credentials)
3. Create a folder structure as follows:
 - a. Tournament name, containing:
 - i. Subfolders for Division B and Division C, each containing:
 1. A copy of the main Scoring System spreadsheet
 2. Subfolders for each event, each containing
 - a. A copy of the blank scoring sheet spreadsheet

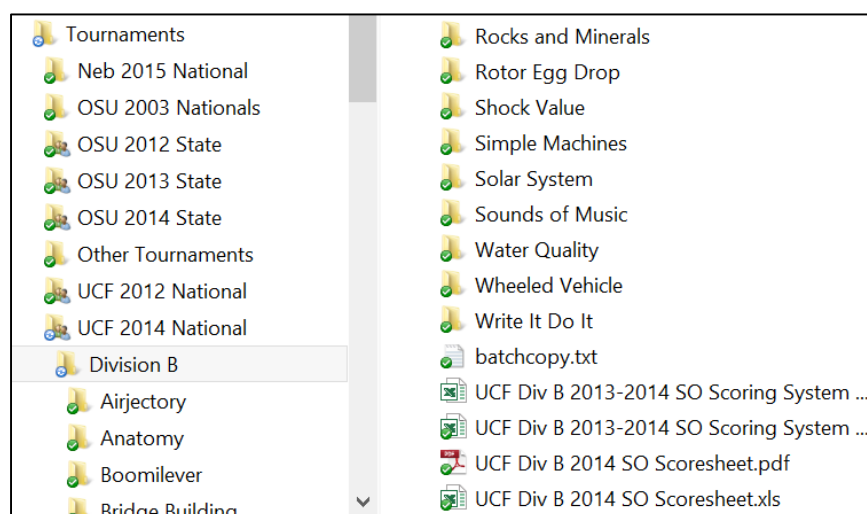


Figure 6: Example Dropbox folder structure (partial)

By using Dropbox, final results can be made electronically available to the participants immediately after the tournament is over, by completing these initial steps:

1. Create a text file somewhere in the Dropbox folder named something like "Results Not Available Yet.txt" with contents saying something like "Check back here after the tournament is over"
2. Right click on the filename and select "Share Dropbox Link" to get a URL for the file. Record this URL somewhere.
3. Go to <http://tiny.cc/> (a URL shortening website) and create a new account.
4. Setup a tiny.cc URL (e.g. tiny.cc/sont) that points to the URL from step 2
5. Share the tiny.cc URL you created with coaches and participants in advance of the tournament, with instructions that it won't point to the results until after the tournament is over.

See the section in results reporting below for info on what to do post-tournament

Day of Tournament Event Supervisor Operations:

During the Event:

Whenever possible, you should grade tests and tally scores on an ongoing basis throughout the event day. For example, if you have multiple time slots for competitors, assign a volunteer to grade tests from the prior time slot as soon as the next one begins.

Note there is no need to convert raw scores into ranks by hand. The scoring spreadsheet will do that for you. If possible, populate the electronic scoring sheet as you go. If you don't have a computer available, use a paper copy the tournament director should have provided to you.

#	Team Name (State)	Raw Score	Tier	Tie Break	Place	Points
1	Muscatel M.S. (CA)					
2	Winston Churchill M.S. (CA)					
3	Piedmont IB M.S. (NC)					
4	Jay M. Robinson M.S. (NC)					
5	Meads Mill M.S. (MI)					
6	Lakeshore M.S. (MI)					
7	Paul Gelinis J.H.S. (NY)					
8	Eagle Hill (NY)					
9	Science & Arts Academy (IL)					
10	Daniel Wright J.H.S. (IL)					
11	Solon M.S. (OH)					
12	Magsig M.S. (OH)					
13	Shady Side Academy M.S. (PA)					
14	Springhouse M.S. (PA)					
15	Riverwood M.S. (TX)					
16	Beckendorff J.H.S. (TX)					
17	Ladue M.S. (MO)					
18	Pembroke Hill M.S. (MO)					
19	Dodgen M.S. (GA)					
20	J. C. Booth M.S. (GA)					
21	Orlando Science School (FL)					

Import data from another workbook

SCORE REPORT FORM DIV. B

Event:

Sort Orders

Scores	High Value Wins
Ties	High Value Wins

Create rank sorted version of sheet

Place	Team	Score	Tier	Tie
1st				
2nd				
3rd				
4th				
5th				
6th				

INSTRUCTIONS:

- PLEASE BRING THIS FORM TO HEADQUARTERS ASAP!
- Only fill in the YELLOW cells. Everything else is automatic.
- Special codes: "p" for participation, "ns" for no show, "dq" for dq'd (without the quotes) allowed in any column.

WARNING: YOU HAVE BLANK RAW SCORES!

Figure 7: Example blank scoring spreadsheet screenshot (partial)

After the Event:

- Proceed to the scoring room as soon as possible. It is not necessary to have completed grading all tests / tabulating all scores. The tournament director will have a room for you to complete this process and volunteers to help you speed it up.
- Check-in once you arrive and notify the scoring room staff of your status
- If you used a paper version of the event score sheet, inform the scoring room staff and they will provide you with a computer and assistance transcribing the scores

- Prior to beginning the final score counseling process, please ensure that you:
 - Complete the Excel or paper scoresheet
 - Break all ties (except DQs, NSs, Ps). The scoring spreadsheet will automatically indicate if there are any ties by highlighting them in red. Enter tie breaker scores in the appropriate boxes to break the ties.
 - Include tiers if there are any
 - Indicate either high or low score wins
 - Indicate either high or low tie wins
 - If possible, order all tests by rank (not team #) or provide event-specific scoring sheet
- If you utilized your own computer, copy the scoring spreadsheets to a USB thumbdrive or email them to an address the tournament director provided
- Once done, notify the scoring room staff to commence the final score counseling process, and they will walk you through the score counseling checklist, which will consist of:
 - Fill in the information in the counseling checklist
 - Show how the score was derived with a few tests
 - Ensure all ties broken (if possible)
 - Confirm the score and ties sort order (high or low wins)
 - Confirm that the generated rank order agrees with sorted tests or event-specific scoring sheet
 - Correct any issues and reconfirm if needed
 - Print spreadsheet and verify and sign before leaving

Science Olympiad
Version: 5.0

▲ SCORING GUIDELINES

(For use with Excel-based scoring systems)

1. **Computer Based Scoring:** Please utilize the Excel-based (preferred) or paper score sheet for recording raw scores, tiers, and tie breakers. Do not enter ranks, they will be auto-calculated. Usage instructions are included on the sheet. It will reduce the chances of scoring errors and facilitate easy data transfer to the master scoring computer. Please use a descriptive name when saving the score sheet (e.g. OpticsDivC.xls). Printers and computers are available at the tournament HQ for you to utilize when finalizing event scoring.
2. **Tie Breakers:** All teams who participate and compete according to the rules must be scored and ranked. Please account for all teams and make every effort to break ties according to the event rules guidelines. If a tie can't be broken, award points according to the place tied and then skip the next place.
3. **Tiers:** Teams/devices that do not meet the requirements in the event rules must be allowed to compete if possible and are to be notified, scored, and ranked below those who met all of the specifications ("tiered"). Teams may be allowed to modify any device before it is impounded to bring it into compliance with the rules. Any modification must be completed before the end of the impound period.
4. **Participation Points:** Teams making an honest attempt to participate that cannot be assigned a raw score (e.g. safety hazard, mechanical failure, wrong dimensions, etc.) must be listed as a "P" for Participation as the raw score on the score sheet.

Figure 8: Example scoring guidelines (partial)

Day of Tournament Scoring Room Operations:

Prior to Events Finishing

At least two hours before any events are scheduled to finish, scoring room staff should plan on arriving at the scoring room and setting things up as follows:

1. Designate someone as responsible for 'event supervisor greeter' and position them in the hallway or close to the door. Provide them with:
 - a. Copies of the Scoring guidelines / checklists / evaluation forms / etc (as appropriate)
 - b. Printed labels with event names
 - c. Manila folders
 - d. Pens
 - e. A copy of the event schedule
 - f. An updated list of any appeals as they come in
2. Power on all the computers and verify that they can access the Internet, see the Dropbox folders, open the Excel Scoring Sheet, and print. Note that anytime you open the scoring spreadsheet on a new computer, be sure to click 'Enable Content' in the security warning box to allow the embedded macros to run.
3. Designate 2 computers farthest from the others as the 'Master Computers' (one for each division). Assign to these 2 computers staff that are most familiar with the scoring spreadsheet and process and are responsible overall for each division. These two computers should be the only ones to ever open up the 'master' scoring spreadsheet files that contain all the events.
4. If available, put up on a projector or whiteboard a list of all events in both divisions. As events finish the score counseling process, have someone mark them off on the list so you can keep a running tally of where things stand that is visible to everyone.
5. Have each other volunteer select a computer to use. Designate any remaining computers for event supervisors to use for score entry prior to counseling.
6. Have the rest of the staff read through this document and go through a mock score counseling to get familiar with the process.



Figure 9: Projected list of events and 'Master Computers' in a National Tournament scoring room

Checking in Event Supervisors

Once an event supervisor shows up, the greeter should greet them and:

- Ask whether they are ready for score counseling or not. If not, make a note on the event schedule that they have shown up and:
 - If they need space to finish grading, point them to the room / tables designated for that.
 - Ask if they need volunteers to help them finalize grading, and if so assign some volunteers from the available pool
 - If they need to enter scores from a paper list, assign them to one of the extra score entry computers and offer to assign them a volunteer to help with the process
- If they are ready for score counseling, go through the top few items of the score counseling checklist with them, filling out / verifying that:
 - Event name and supervisor contact info
 - Whether there are any appeals (by cross referencing the provided list). If so, send them to arbitration before proceeding
 - They've brought all scoresheets, tournament specific forms, results, etc.
- Take the corresponding event label off of the sheet of labels, place on an appropriate color folder (Blue for B, Crimson(Red) for C), put all the paperwork they brought into it (except for tournament specific forms you've been asked to collect) and send them into the scoring room for counseling. If all score counselors are currently busy, ask them to wait a few minutes.

Science Olympiad	Version: 5.0	
<h3>SCORE COUNSELING CHECKLIST</h3> <p>(For use with Excel-based scoring systems)</p> <p><u>Note: PLEASE DO NOT LEAVE THE TOURNAMENT HQ UNTIL THIS HAS BEEN COMPLETED ENTIRELY</u></p>		
Event: _____	Division: <input type="checkbox"/> B <input type="checkbox"/> C	
Supervisor: _____	Cell Phone Number: _____	
1. Are you aware of any appeals? If yes, check for appeal's resolution prior to submitting scores.		
2. Please check that the following are collected by the front desk:		
<input type="checkbox"/> Copy of test and key	<input type="checkbox"/> Spirit Award nomination	<input type="checkbox"/> General checklist
<input type="checkbox"/> Supervisor evaluation	<input type="checkbox"/> Gold Medal winners	
3. Bring these items to Score Counseling:		
<input type="checkbox"/> Student answer sheets	<input type="checkbox"/> Attendance form	<input type="checkbox"/> Scoring spreadsheet
4. How was the event run?		
<input type="checkbox"/> Stations	<input type="checkbox"/> Hands-on activities	
<input type="checkbox"/> Written test	<input type="checkbox"/> Other _____	
5. What factors contribute to the final score (e.g. # questions right, times, measurements, <u>etc</u>)?		

Figure 10: Example score counseling checklist (partial)

Score Counseling

Score counselors should watch for event supervisors to show up, and then invite them to sit down with them at their computer station to begin the following process:

1. Verify that they have gone through the check in process with the greeter. If not, send them back to the greeter.
2. Complete the rest of the score counseling checklist with them, physically marking off each section including:
 - a. How the event was run
 - b. What factors contributed to the final score
 - c. High vs. low score / tiebreaker wins
 - d. How were ties broken
 - e. Any DQs, no shows, or tiering of teams.
3. Note at 'lower level' tournaments (e.g. invitationals and regionals), DQs, no shows, etc. are more common, but at 'high level' tournaments (e.g. states and nationals) they are very uncommon. If they occur, the scoring room supervisor and/or tournament director should be notified to verify what the situation was. For example, at the National Tournament, it will only occur a handful of times each year and the head coach of the relevant team is personally contacted immediately by the scoring room supervisor.
4. Have the event supervisor walk through the process of deriving the score with a few example tests or data sheets to spot check for any errors. If you are unsure about the process, consult a copy of the event rules.

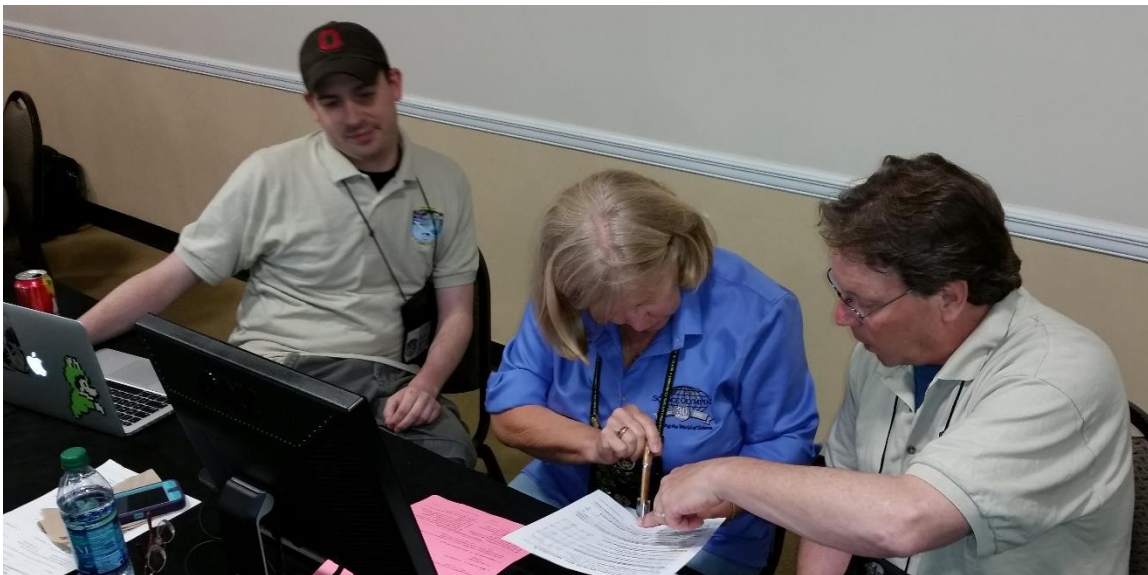


Figure 11: National Tournament score counselor checking raw score derivation with event supervisors

5. Browse to the relevant event subfolder in Dropbox (e.g. \Dropbox\SONT15\DivisionB\WrightItDolt\) and either:

- a. Copy to that folder and electronic copy of the scoring spreadsheet provided by the event supervisor (use a USB thumbdrive if they brought it on their laptop).
 - b. Or open up the blank scoring spreadsheet that is in that folder and fill out the information from the paper scoresheet the event supervisor brought with them.
 - c. Or if the event supervisor used an event specific spreadsheet to help tabulate the raw scores, such as is common in the building events:
 - i. Copy the event-specific spreadsheet to that subfolder
 - ii. Open both it and the blank scoring spreadsheet in that folder at the same time
 - iii. Click on the 'Import data from another workbook' button and follow the prompts to select the first cell of the raw score, tiebreak, and if appropriate tier column to automatically copy them over.
6. Follow the bottom part of the score counseling checklist to verify and/or correct:
 - a. The event name is correct
 - b. All teams are scored
 - c. All ties are broken if possible
 - d. Nothing is highlighted red (which indicates an error)
 - e. The sort order is correct (almost always high value wins)
 - f. The tie order is correct (usually high value wins)
 - g. Any tiers, if present, are entered correctly
7. Write your name at the bottom of the checklist
8. Click on the 'create rank sorted version of sheet' button to create a new copy in rank order
9. Use that sheet to verify all teams are scored correctly by comparing to the tests the event supervisor brought, or the event-specific scoresheet
10. Close the rank ordered spreadsheet (no need to save a copy of it) and correct any errors if needed, repeating the above process once done.
11. Save the spreadsheet with a unique, meaningful name (e.g. SONT 2014 Div B Wright It Do It.xls)
12. Print out a copy (Control-P) and close the file
13. Verify with the event supervisor the printed copy is correct and have them sign it
14. Thank the event supervisor for their involvement and allow them to leave
15. Staple the printed copy to the checklist and hand to the appropriate 'Master Computer' operator
16. Take all the paperwork the event supervisor brought in the manila folder, if significant size, put into a large manila envelope, and then place the folder and/or envelope into one of the cardboard boxes available for storage



Figure 12: National Tournament score counselor following checklist

'Master Computer' Operation

Once score counselors hand off finalized scoresheets to the 'Master Computer' operators, they should do the following to merge all the results:

1. Browse to the relevant event subfolder in Dropbox (e.g. \Dropbox\SONT15\DivisionB\WrightItDoIt\) and open the scoresheet (e.g. SONT 2014 Div B Wright It Do It.xls)
2. Verify that both the appropriate score sort order and event name boxes are filled in
3. Browse to the top level Dropbox directory for the division they are responsible for (e.g. \Dropbox\SONT15\DivisionB) and open the master score system file (e.g. SONT 2014 Div B Scoring System.xls) (note both files should be open at the same time)
4. Switch to the appropriate event tab in the master score system file
5. Click on the 'Import data from another workbook' button. A box should pop up saying it found an open workbook with the same event name and asking if you want to automatically import the data. If this box doesn't appear, the score counselor didn't do something correct (likely forgot to select the event name) and should be asked to correct it.
6. Click 'yes' to automatically import the data.
7. Verify that there are no red warnings showing up on the event spreadsheet. If there are, notify the score counselor and work to correct them
8. Save the master score system file
9. Close the event score sheet file
10. File the printed copy of the event score sheet with the appropriate folder / envelope in the large cardboard boxes

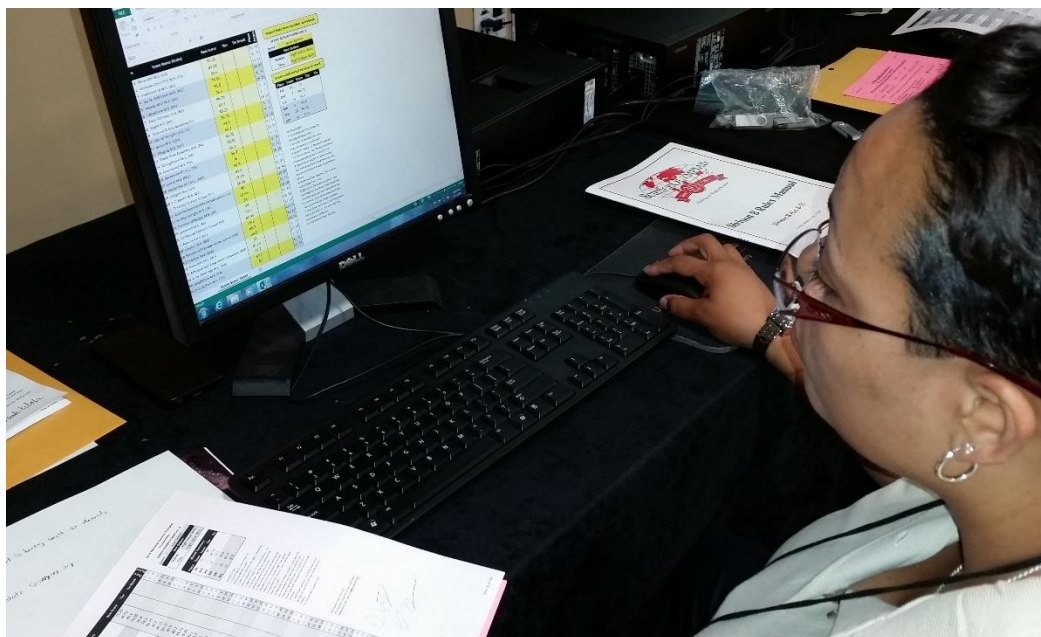


Figure 13: National Tournament 'Master Computer' operator merging results

When not merging files, the master computer operator can monitor the 'Master' tab to see the overall status of the results and whether there are any errors. Other items of note:

- If a team penalty needs to be assigned, the relevant positive value can be put in the yellow box on the right side of the 'Master' tab
- If somehow a file gets corrupted, right click on the filename and select 'View on Dropbox.com' to view it on the Dropbox website. Right click on the filename there and select 'Previous Versions' to select a previous version to restore
- If an entire event needs to be thrown out or converted to a trial / pilot for some reason, the appropriate pull down box can be changed on the 'Setup' tab and the changes will be made automatically
- If an entire team needs to be DQd or no shows, the appropriate pull down box can be changed on the 'Setup' tab and the changes will be made automatically

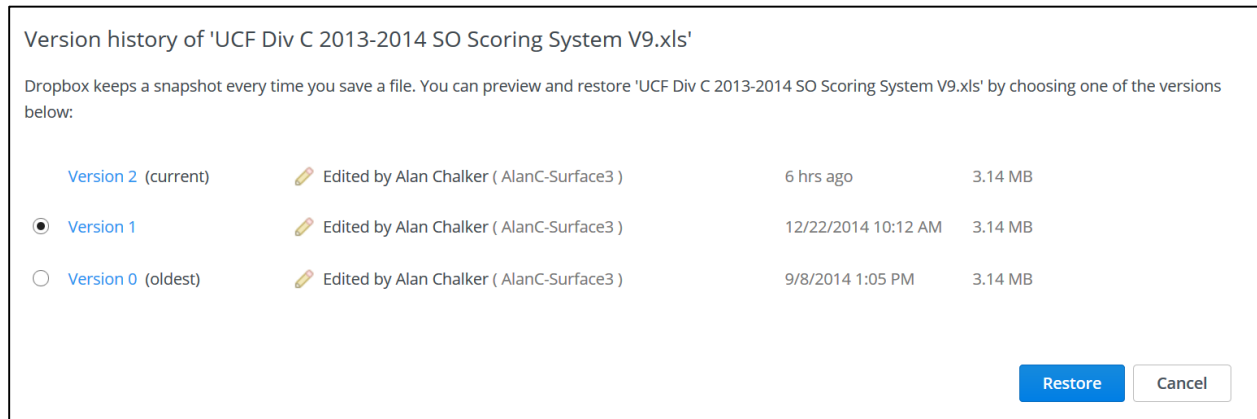


Figure 14: Dropbox file version history screen

Awards Ceremony and Results Reporting:

Awards Ceremony Materials Creation

In order to provide a script for the awards announcers to read, for each division complete the following steps. Note that it is possible to begin announcing results without all events being finalized, since you can selectively print out whichever events you want to. Also note that by having computers setup backstage at the ceremony location, these steps can be completed onsite instead of at the scoring room, saving the trouble of having to physically take pages from one location to another.

1. Open up the master scoring spreadsheet (e.g. SONT 2014 Div B Scoring System.xls) and click on the 'Printable Medals List' tab
2. If needed, click on the 'Change # of medals' button to change the settings from the default (6 medals for individual events, 10 medals for overall team rankings)
3. Also, as desired, click on the 'Display Order' box to pick either 'First at top' or 'Last at top', depending on the preference of the person reading off the results (e.g. do they want to read top to bottom, or bottom to top on the physical page)
4. Click on the 'Print this sheet' button and select the desired options described below. Note that by default, only events that do not contain any errors are selected for printing, but you can select / unselect any events you'd like.
 - a. Whether to show or hide the raw score / tie / tier values
 - b. Whether to print in portrait or landscape orientation
 - c. Whether to print 1 event per page, or as many events as possible per page
5. If you use the selective print functionality to start announcing results before everything is finalized, keep a checklist of which events you've already printed out (and unselect them on subsequent printing) so you don't print them out a second time and cause confusion with the award announcers.
6. If possible, print the results on 3 hole punched paper, or punch it after printing, and place in a three ring binder to give to the award announcer

Instructions:
1. Change the number of medals button: Updates both event and team medals that are visible
2. Print this sheet button: sends results to the default printer.
3. Create a PPT presentation button: copies all results into a PowerPoint presentation.
4. Display Orders selectors: sets which rank display at the top of the lists (both on screen and PPT)

of Event Medals to Print

6

Change # of medals

of Team Medals to Print

10

Change # of medals

Display Order

First at top

Create a PPT presentation

PPT Display Order

First at top

Select Display Order dropdown rank to display each set of

Anatomy and Physiology				Division C		
Place	Team #	State	Team Name	Raw Score	Tier	T
1st	3	CA	Troy H.S.	55		
2nd	28	MN	Mounds View H.S.	52.1		
3rd	5	NC	William G. Enloe H.S.	52		
4th	20	TX	Seven Lakes H.S.	51		
5th	29	NJ	West Windsor Plainsboro South	49		
6th	6	NC	Raleigh Charter H.S.	48.1		48.1

Figure 15: Example 'Printable Medals List' tab (partial)

In order to provide a PowerPoint presentation for display at the awards ceremony, for each division complete the following steps. Note that just like with the announcer scripts, it is possible to begin displaying results without all events being finalized, since you can selectively create slides for whichever events you want to.

1. Open up the master scoring spreadsheet (e.g. SONT 2014 Div B Scoring System.xls) and click on the 'Printable Medals List' tab
2. If needed, click on the 'Change # of medals' button to change the settings from the default (6 medals for individual events, 10 medals for overall team rankings)
3. Also, as desired, click on the 'PPT Display Order' box to pick either 'First at top' or 'Last at top', depending on your preference (e.g. do you want to results displayed top to bottom, or bottom to top on the screen)
4. Click on the 'Create a PPT presentation' button and select the desired events. Note that by default, only events that do not contain any errors are selected for printing, but you can select / unselect any events you'd like. If you use the selective functionality to start announcing results before everything is finalized, keep a checklist of which events you've already created slides for (and unselect them on subsequent slide creation) so you don't create them a second time and cause confusion with the award announcers.
5. If desired, select 'yes' and browse to an image file that will be set as the background for all slides
6. Once the macro finishes save the new PPT file to your top level tournament Dropbox directory with an appropriate name (e.g. SONT 2014 Div B Final Results.ppt)



Figure 16: Example Event Results PowerPoint Slide

If you are presenting both B and C division results at the same time, from the same computer, and want to alternate between them, the appropriate slides need to be interleaved. This can be done using the 'Merge ppts.vbs' script available in the 'Other Utilities' folder at the Sourceforge.net website where the Excel scoring system was downloaded from. Note this script only works under Windows:

1. Note that the script assumes the last slide in each source PPT is a team results slide and does a special interleave row by row of them. Thus be sure you have included the team overall results slide in both source PPTs, even if you haven't finalized them yet.
2. Double click on the script to run it
3. Browse to the first PPT file you want to merge (e.g. SONT 2014 Div B Final Results.ppt)
4. Browse to the second PPT file you want to merge (e.g. SONT 2014 Div C Final Results.ppt)
5. Browse to a background image you would like to use for each slide, if desired
6. Wait for the script to finish, and if the team results aren't finalized, delete the last 2 slides.
7. Save the resulting file under a new name (e.g. SONT 2014 Combined Final Results.ppt)



Figure 17: Example merged PowerPoint slide with interleaved divisional team results

Awards Ceremony Operations

The award announcers can utilize the paper scripts created above to announce the results. Some suggestions to ensure this goes smoothly:

- Go in the order of the pages that were given to you. This might not be alphabetical and you might not be given all the results initially since scoring is not complete. Each page has a page number and time/date stamp to help ensure you keep them in order.
- You might be asked to alternate between divisions, which means you might have two sets of papers to reference. Keep them side by side on the podium to help keep track of the order. In most of these situations, there will be two different lines of people giving out the medals, one for each division, so provide clear instructions to the audience as to where medalists should go.

- Announce the Event Name and Division first, then pause for a few moments. Note that some events are in both divisions, thus it is important to clearly announce the division.
- Start with the last place listed on the sheet and announce the place, team name, and state if appropriate. Pause for a brief moment, then go to the next place. Do not wait for applause or recognition for each place, as the ceremony will take far too long. The printouts might show additional information such as raw score, tiers, or ties. In almost all situations you should not announce these results, as they are purely for reference
- Once done with an event, use a pen to mark a line through the event on the page so you keep track of which ones you've announced
- Wait a little bit for medalists to come up and start receiving their medals, before starting the next event. Don't wait for them to finish that process and leave the stage as that will also cause the ceremony to be too long.
- When announcing the team results, the total points for each team are often also announced as that is of interest to the audience and helps build the suspense. Since it takes longer for entire teams to come up to the stage, you should wait much longer between announcing places.

Anatomy				Division B		
Place	Team #	State	Team Name	Raw Score	Tier	TieBreak
6th	5	MI	Meads Mill M.S.	90		
5th	9	IL	Daniel Wright J.H.S.	92		
4th	2	CA	Muscatel M.S.	95		
3rd	32	WI	Hamilton M.S.	95		.5
2nd	27	AL	Auburn J.H.S.	97		
1st	35	NJ	Community M.S.	98		

Boomilever				Division B		
Place	Team #	State	Team Name	Raw Score	Tier	TieBreak
6th	6	MI	Lakeshore M.S.	1458.198		
5th	5	MI	Meads Mill M.S.	1489.573		

Figure 18: Example announcer script (partial)

During the awards ceremony, a volunteer can operate the computer connected to the projector / display backstage to show the results as follows:

1. Open the appropriate PPT file (e.g. SONT 2014 Combined Final Results.ppt) and go into slide show mode (e.g. F5 or Slideshow menu -> From beginning).
2. Listen to the award announcer to verify that they are announcing the event currently shown. If not, interrupt them and sort out why there is a difference.
3. Once the announcer announces a place / team name, press the space bar or right arrow key to have that name be displayed. If you make a mistake, press the left arrow key to go back.
4. Once the announcer completes an event, pause for a bit until advancing to the next slide.

In order to provide hardcopies of the results to the teams once they are finalized, for each division:

1. Change your default system printer to Adobe Acrobat via the Printers control panel setting
2. Open up the master scoring spreadsheet (e.g. SONT 2014 Div B Scoring System.xls) and click on the 'Master' tab
3. Click on the 'Click to Print this Sheet' button, and select 'Yes' when prompted if you want to hide red warning messages
4. Create an appropriate filename for the resulting PDF (e.g. SONT 2014 Div B Final Results.pdf) and save it to your top level tournament directory on Dropbox.
5. Verify that the PDF looks correct
6. And / or click on the 'Create rank sorted version of this sheet' to print / save a copy in rank order
7. Note at Nationals, both the Team order and Rank order sheets are created and combined into one PDF for posting online
8. Print out as many copies as you need directly, or copy to a USB thumbdrive to take to a copy machine / print shop

1. Right click on the final results file (e.g. SONT 2014 Div B Final Results.pdf) created above and select “Share Dropbox Link” to get a URL for the file. Record this URL somewhere.
2. Login to your tiny.cc account and click on ‘Manage’ in the upper right
3. Click the checkbox next to the URL you previously created (e.g. tiny.cc/sont) and click on the small pencil icon at the top to edit it.
4. Change the target URL to match the URL from step 1. and click ‘update this link’.

2014 National Science Olympiad Tournament		Master Score Report Division B																											
#	School Name (State)	Anatomy	Boomilever	Cant Judge A Powder	Crime Busters	Disease Detectives	Dynamic Planet	Entomology	Experimental Design	Helicopters	Heredity	Meteorology	Metric Mastery	Road Scholar	Robo-Cross	Rocks and Minerals	Rotor Egg Drop	Shock Value	Simple Machines	Solar System	Sounds of Music	Water Quality	Wheeled Vehicle	Write It Do It	Al Jeux (T/P)	Bridge Building (T/P)	Team Penalties	Total Team Points	Final Team Rank
1	Muscatel M.S. (CA)	8	39	3	2	11	2	2	25	7	2	13	44	3	19	1	15	1	9	31	35	21	6	17	6	24		316	6
2	Winston Churchill M.S. (CA)	18	7	1	8	19	1	4	24	8	4	16	11	6	5	4	7	3	19	9	12	3	2	25	11	9		216	2
3	Piedmont IB M.S. (NC)	3	16	26	12	28	9	22	15	33	34	4	42	15	18	19	16	16	1	11	10	5	18	33	22	34		406	9
4	Jay M. Robinson M.S. (NC)	26	11	53	7	16	3	29	17	34	7	11	33	18	56	37	30	35	8	30	9	34	23	15	20	35		542	23
5	Meads Mill M.S. (MI)	5	13	4	1	5	16	3	3	1	9	5	18	1	6	8	53	6	7	4	7	2	59	10	2	25		246	4
6	Lakeshore M.S. (MI)	23	22	15	28	9	15	35	39	29	27	23	35	21	32	16	14	36	28	25	34	8	22	16	61	5		552	24
7	Paul Gelinias J.H.S. (NY)	12	35	22	9	1	21	9	20	5	3	19	30	4	47	6	40	26	22	2	22	25	34	7	3	41		421	11
8	Eagle Hill (NY)	20	21	31	3	30	10	11	30	38	13	8	17	12	15	3	55	31	35	7	11	20	8	12	16	61		441	12
9	Science & Arts Academy (IL)	31	32	8	11	25	23	16	37	18	46	40	3	11	17	30	5	9	26	18	33	32	5	39	61	20		515	18
10	Daniel Wright J.H.S. (IL)	6	3	7	10	4	6	12	1	25	1	7	7	9	25	12	11	25	32	5	1	10	11	3	1	19		233	3

Figure 19: Example final results printout (partial)