

Marco Men's Club Golf Handicap Calculator

QUICK START GUIDE

(Please read before using the Handicap Calculator Spreadsheet)

For purposes of this discussion a Microsoft Excel Workbook containing Worksheets will alternately be referred to as a Spreadsheet with Tabs.

A backup copy of the SPREADSHEET for calculating Golf Handicaps is stored in two places: the MMC website "Restricted" area. <https://marcomensclub.com/Forms/Forms.htm#RESTRICTED> and in the club's Google Drive account.

A password is required to access these sites. Contact the Club President for access.

ALL DATA ENTRY:

WARNING:

There are a few important restrictions when entering or changing data on this spreadsheet.

1). DO NOT USE THE "CUT" AND "PASTE" COMMANDS anywhere in this spreadsheet

(copy and paste is OK)

2) DO NOT USE THE 'DRAG AND DROP' PROCESS. Functionally, it is the same as CUT&PASTE.

3) Do NOT delete or insert Rows or Columns

4) All data is entered on tabs (1A & 1B). DO NOT ATTEMPT TO EDIT ANY OF THE OTHER TABS.

5) How to "Erase" data (without using the CUT command)

-Mouse users: erase unwanted data by selecting it, point to the selection, right click it and choose "clear contents".

-Touchpad & Keyboard users: select unwanted data and press delete key on your keyboard.

Why? **CUT&PASTE (DRAG&DROP)** are **powerful** Excel commands. There's over a quarter of a Million formulas in this workbook that pull data from Tabs(1A&1B) in order to do all the calculations for the handicaps and generate the reports. Excel attempts to modify the formulas throughout the entire workbook to follow the CUT command. CUT & PASTE a single cell to a new location and Excel will modify every worksheet (i.e. Tab) & possibly every formula in this Spreadsheet. The result is a **DISASTER** and can be very difficult (and sometimes impossible) to repair. **Please don't do it!**

Still need convincing? Follow this link for an interactive one-page spreadsheet that will let you see for yourself the impact of CUT&PASTE.

<https://marcomensclub.com/Forms/2024-InteractiveCutAndPasteTutorial.xlsx>

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OVERVIEW:

This Spreadsheet (Workbook) is a database that will handle 125 golfers playing up to 500 rounds of golf on 4 different courses. That's a maximum of 62,500 scores! All data is entered on Tabs 1A&1B. Tab 6 is used only when necessary to create a spreadsheet on which to record scores to provide to the handicapper. The system automatically calculates the handicap index and the course handicaps for up to 4 courses. Four different reports are available. The reports are generated automatically and require no intervention except to print and distribute them. A blank data input sheet is available (tab 6) that can be emailed to the Scorekeeper for logging in scores.

It's important that everyone involved has a basic understanding of the overall process. See APPENDIX H for a refresher.

This process is designed to accommodate a 2-person team using Microsoft Excel:

1) The "**Scorekeeper**" is responsible for collecting the raw scores from the golfers and entering the adjusted scores on the **Adjusted Scores Report form** provided by the Handicapper. The completed **Adjusted Scores Report** is then submitted to the Handicapper periodically. The form can accommodate up to 10 rounds of golf (with up to 125 golfers per round).

2) The "**Handicapper**" is responsible for entering the adjusted scores for each round played, maintaining the Course Ratings, keeping the golfers information accurate & sorted, printing & distributing the Handicap Reports and for periodically providing the Scorekeeper with a blank "**Adjusted Scores Report form**."

With a slight procedural modification, the Scorekeeper and Handicapper functions can be managed by a single person. In that case, Tab 6 is not required. The Handicapper/Scorekeeper simply enters the adjusted scores and round information directly into Tab 1A of the Handicap Calculator spreadsheet.

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THE PROCESS:

A) SCOREKEEPER Assignment

- 1) The scorekeeper starts out with a fresh **Adjusted Scores Report form** (an Excel Spreadsheet) provided by the Handicapper. The **Adjusted Scores Report form** is already populated with the Golfers' information (Email address, Phone number, First & Last name and the golfer's category designation). It also has at the top the Round numbers, starting with the next Round to be entered into the spreadsheet data base by the Handicapper.
Tip: The score keeper is NOT allowed to change the round numbers at the top of the form, or edit any of the Golfers information.
- 2) The Scorekeeper is only allowed to enter the **Adjusted Score information** for each round reported. (Date played, Course name, Course rating & Course slope, and the individual adjusted scores). He may not delete or insert rows or columns or change the golfer's information (except to add new members).
Tip: Report any errors or corrections of golfer info such as name, phone, email to the Handicapper so that he can correct them in the data base.
Tip: To add new members you must first "Unprotect" the spreadsheet. Right click the Tab and click "Unprotect".
- 3) He collects the score cards with the raw scores from the golfers, applies the score adjustment rules and enters the adjusted scores on the data entry form. The form will accommodate up to 10 rounds of golf and 125 golfers.
- 4) If there is a new golfer who is not listed on the data form the Scorekeeper can add this person starting in the first blank line below the last golfer listed. The Scorekeeper **MUST** clearly advise the Handicapper if he has added a new name or names, so that the Handicapper can update the database.
- 5) At any time, the Scorekeeper can email the **Adjusted Scores Report** to the Handicapper. He does not have to fill up all 10 rounds. The Handicapper may from time to time request an updated **Adjusted Scores Report**.
- 6) Once the Scorekeeper has submitted an **Adjusted Scores Report** to the Handicapper, he must wait for a new **Adjusted Scores Report** form from the Handicapper before recording any more scores.
Tip: This new form will have any new names in it and the round numbers at the top will have been automatically updated. Do NOT re-use any previous Adjusted Scores Report Form. The Round numbers and golfer's information and order may be wrong.

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B) HANDICAPPER Assignment

- 1) The Handicapper manages the database. He receives the latest data as a spreadsheet (the **Adjusted Scores Report**) from the Scorekeeper via email.
Tip: The scorekeeper's data form is a unique, separate spreadsheet that should be saved in a folder for future reference, with an appropriate name. Don't change anything on it. Just COPY the information to tab 1A in the Handicap Calculator spreadsheet.
- 2) After a brief inspection to ensure the integrity of the data the Handicapper COPIES (**No CUTTING, please**) the data, and USES 'paste values' to paste the data into the next available (blank) Round columns on Tab "**1A) Scoresheet Input**". Paste Values insures that you do not bring the formatting on the Adjusted Scores Report into Tab1.
Tip: First, Unprotect the Adjusted Scores Report worksheet. Then copy the data starting with the round number and continuing down to the lower right-hand corner of the last populated column. Note that the rounds on the data form are numbered. For example, if the last round recorded in the database was round number 72 the Adjusted Scores Report will show the next 10 rounds, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82.
- 3) If the Scorekeeper has added any new golfers the Handicapper needs to copy the golfer's information from the datasheet to Tab 1A. The addition of new members will likely require a re-sort. See APPENDIX B. See APPENDIX A to remove golfers who are no longer in the league.
- 4) Next the Handicapper needs to check tab "**1B) Course Descriptions**" to ensure that the information on the current courses is accurate and in the right order for the reports.
Tip: If changes are required see APPENDIX C.
- 5) Once all the data is entered and the golfers have been sorted as needed everything else is automated. The reports are immediately ready to be printed and distributed. The new **Adjusted Scores Report form** is ready to be created and emailed to the Scorekeeper. See the detailed instructions on preparing and emailing the new **Adjusted Scores Report form** for the Scorekeeper in APPENDIX D.
Tip: If you have not done this before, or are rusty, PLEASE read APPENDIX D first.
- 6) Optional: The Handicapper can now print and distribute the Handicap Report(s) he wants. There are 4 options for reports and they are located in Tabs "**5A), 5B), 5C), and 5D) Handicap Report**".
Tip: No entries are required on any of these reports. They are fully automated and formatted to print to paper or save as a PDF which can be distributed by email.
- 7) The Handicapper's job is now complete, until he receives a new **Adjusted Scores Report** from the Scorekeeper. Then this process repeats itself.

-Ed Crane (239-537-1061)

Marcoman357@aol.com

MMC Webmaster, Circa 2006

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APPENDIX A -How to remove Players that no longer Golf.

APPENDIX B -How to Sort Tab "1A) Scoresheet Input" by "Category" & "Last Name".

APPENDIX C -How to Change & Reorganize the Course Information.

APPENDIX D -How to create a new blank "Adjusted Scores Report Form" from Tab 6.

APPENDIX E -Disaster Recovery.

APPENDIX F -HOW TO CREATE A NEW BLANK WORKBOOK (Without losing current handicaps)

APPENDIX G...How to repair #REF! errors caused by the CUT command.

APPENDIX H Overview of the entire process.

APPENDIX I Alerts and Error Messages & what to do with them. (added 2023-1116)

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APPENDIX A HOW TO REMOVE PLAYERS THAT NO LONGER GOLF

Let's assume that the spreadsheet is getting cluttered up with guys who no longer golf and you'd like to remove them. An added benefit is that you free up some rows for future golfers. (This spreadsheet will only handle 125 golfers.) **Remember: DO NOT DELETE ROWS. It will permanently damage the spreadsheet.**

OVERVIEW: The objective is to identify players to be removed and sort them out at the bottom of the list. Then you can erase them leaving behind blank rows ready for new members to be added.

Tip: Best Practice. Before sorting any spreadsheet use the "Save As" command to save your latest version under a new name. For example, open "2020-0525 HCP.xlsx" and immediately use "Save As" to create spreadsheet 2020-0526 HCP.xlsx. Now you can do your sorting on the new version. The 2020-0525 HCP is your backup. Failure to do this may result in a permanently damaged database that can **NOT** be recovered.

Follow these steps to ERASE some golf members & their scores:

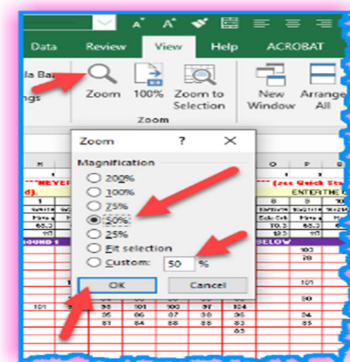
- 1) Open the spreadsheet and go to tab "1A) Scoresheet input".
- 2) The first thing you must do is to save a copy of the current spreadsheet as a backup in case your sort goes crazy.
Tip: Please read & follow the "Best Practice" Tip under "Overview" above.
- 3) Use the column labeled "# Rnd" on Tab 1 as a guide to identify those golfers with a low number or zero scores posted.
- 4) Review their history by scrolling through the posted scores. A new golfer may have a low number of scores, but is not necessarily a candidate for removal. On the other hand, a golfer with lots of scores may not have played in years and may be a candidate.
Tip: Review your choices with the scorekeeper and Golf Chairman before removing anyone.
- 5) Once you have identified the candidates to be removed, change their last names to ZZ. Why? After you sort the data by last name all those rows will end up at the bottom of the list of names, ready to be removed.

Row	Email address	Phone #	First Name	Last Name	Cat #	Rds	ENT
76	kip.zimmer@gmail.com	513-616-4610	KIP	ZIMMER	MG	20	
77	Mikeinmarco@gmail.com	239-315-9393	MIKE	CALLINAN	M	3	
78	mikecerutti48@gmail.com	518-438-6390	MIKE	ZZ	M		
79	wwdettinger@gmail.com	239-919-6850	WARREN	ZZ	M		
80	df_flynn@msn.com	609-335-2457	DAN	FLYNN	M	1	
81	dsfuhrmann@mwt.net	608-444-2521	DAVE	FUHRMANN			
82	djoslee@aol.com	402-680-2018	DWIGHT	ZZ			
83	Rickajb@gmail.com	612-840-9723	RICK	ZZ			
84	jkaczka1@comcast.net	239-398-8156	JEFF	KACZKA			
85	bobkusek@comcast.net	609-504-9705	BOB	ZZ	M		
86			LUKE	PAPE	M	4	95
87	brice@riceassoc.com	314-239-2518	BILL	ZZ	M		
88					(Ctrl) -		

Change last name to ZZ for golfers to be removed.

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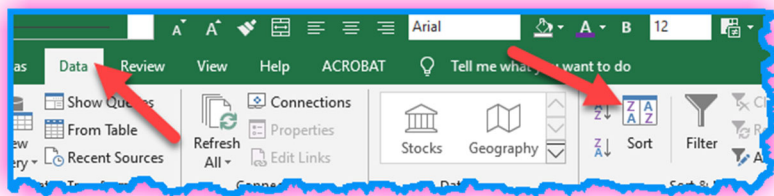
- 6) Now you're ready to SORT. Take a deep breath. Sorting is a powerful Excel tool but it can be dangerous.
- 7) The first thing you are going to do is to select the data range that you want to sort.
This is extremely important. Everything that is associated together (email address, phone #, Name & all scores) MUST be in the sort range. Any information outside of the sort range will be disconnected from the sorted data. This can be difficult, if not **impossible**, to repair.
Tip: **DO NOT** select anything in rows 1 thru 11 (above the purple header). They are never in the sort range.
- 8) Start selecting the data from the upper left-hand corner of the range. Point to the **purple cell** that contains "Email address". There are several ways to select data. The easiest may be to drag your cursor over to the last numbered column. That is the end of the data (the last column of scores) that's been entered so far, and then down to the last row containing a name. **Do NOT** select any blank rows below the last name. It is not necessary to sort all the blank columns! There are 500 data columns in this spreadsheet. Any column without a "Round" number at the top is blank. All columns to the right of that are also blank.



Tip: Do not sort BLANK columns or the BLANK rows below the last golfers name.

Tip: Use the Zoom control shown in the screen capture to reduce the size of what you see on the screen. This will let you see more rows and columns and will make selecting the correct data easier.

- 9) Next, click on DATA in the tool bar at the top and select SORT. See screen capture below.



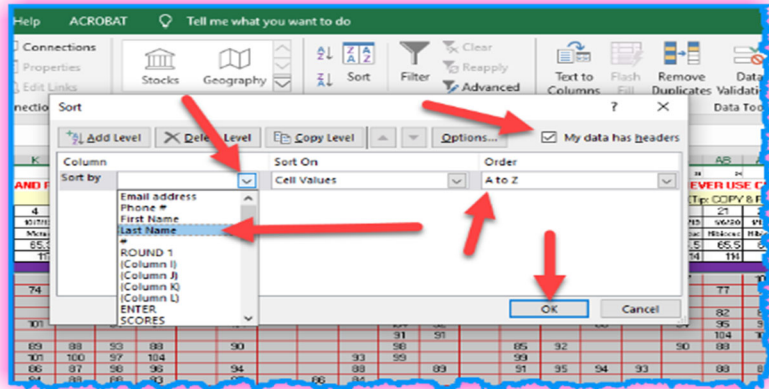
- 10) Now you need to set up your sort conditions. You are going to sort this range, with all the email addresses, phone numbers, names and golf scores, by LAST NAME and put them in alphabetical order from A to Z. See screen capture below.
 - Check the box "My data has headers"
 - Under the dropdown menu select "Last Name"

Tip: If you don't see "Last Name" go back to the previous step & check the box that you have

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headers.

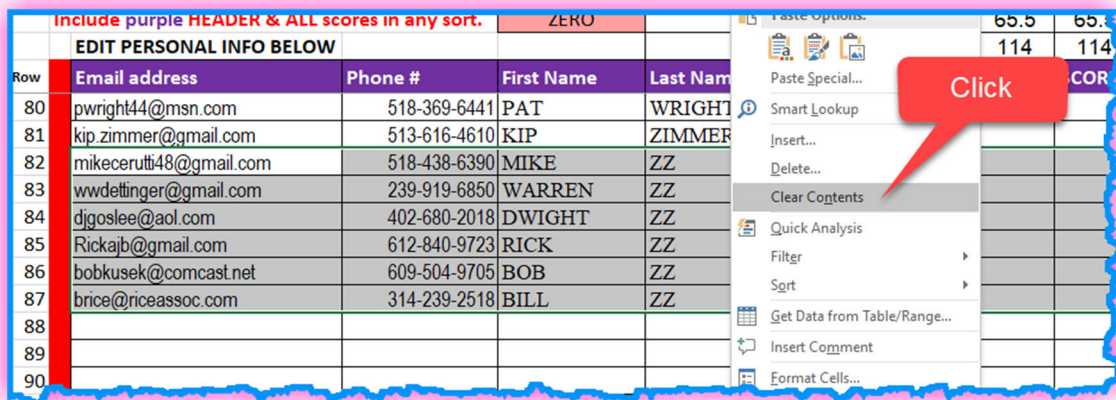
-For sort order, select "A to Z" to put all data in order alphabetically by last name.



- 11) Click OK, and the sort is complete. Note that all the last names corresponding to ZZ are now grouped together at the bottom of the list of names. See screen capture below.
- 12) **DO NOT DELETE THESE ROWS.** Doing so will fatally damage the spreadsheet.
- 13) Instead, select all the golfer information and all the scores from Round 1 out to the last Round played.

Tip: Even though some (or all) of these players may have zero or very few scores please select all score fields from round 1 to the last round played. You don't want to leave any scores in any of those rounds since you will eventually use these rows for new golfers.

- 14) Next, point in the selected area and press DELETE on your keyboard. This deletes (erases) the data but NOT the rows. Alternately, right click for the context menu and click "Clear Contents" as shown in the screen capture below.



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- 15) Note that the previous step also erased (deleted) the formula in the "#Rds" column that counts the number of scores entered for each player. This step is to restore those formulas. Copy the "#Rds" cell in the last row of data. See screen capture below. Select the cells below (the ones without the dash "-") and paste the formula back. A dash "-" will appear in the cell indicating that the formula is now working properly. See Screen capture below.

Include purple HEADER & ALL scores in any sort.				ZERO	Course Rating=>	65.5	65.5	65.5
EDIT PERSONAL INFO BELOW					Course Slope=>	114		
Row	Email address	Phone #	First Name	Last Name	Cat	# Rds	ENTER	S
80	pwright44@msn.com	518-369-6441	PAT	WRIGHT	MG	5		
81	kip.zimmer@gmail.com	513-616-4610	KIP	ZIMMER	MG	20		90
82								
83								
84								
85								
86								
87								
88						-		
89						-		
90						-		
91								

- 16) This completes the process. All of those new blank rows are available for new members.
 Tip: After you add new members and assign them a Category you will need to re-sort the database. Do NOT try this until you have studied and mastered APPENDIX B below!

END OF APPENDIX A

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APPENDIX B HOW TO SORT TAB "1A) Scoresheet Input" BY "CATEGORY" & "LAST NAME"

Tip: Best Practice. Before sorting any spreadsheet use the "Save As" command to save your latest version under a new name. For example, open "2020-0525 HCP" and immediately use "Save As" to create spreadsheet 2020-0526. Now you can do your sorting on the new version. The 2020-0525 HCP is your backup. Failure to do this may result in a permanently damaged database that can **NOT** be recovered.

OVERVIEW:

This is a sort that you will want to do whenever new players are added. The objective may be to organize the entrees by "player category" (i.e. MG, GO & M) and then alphabetically by last name within each category. Or, you may choose to simply organize all the active golfers, (MG and GO) in one alphabetical list.

Note: If your objective is to remove inactive players please refer to Appendix A.

Remember: DO NOT delete rows. It will permanently damage the spreadsheet.

Follow these steps:

- 1) Open the spreadsheet and go to tab "1A) Scoresheet input".
- 2) The first thing you must do is to save a copy of the current spreadsheet as a backup in case your sort goes crazy. See the **Best Practice Tip** at the top of this page.
- 3) Now you're ready to SORT! Take a deep breath! Sorting is a powerful Excel tool but it can be dangerous.
- 4) The first thing you are going to do is to select the data range that you want to sort.
This is extremely important. Everything that is associated together (email address, phone #, Name & all golf scores) must be in the sort range. Any information outside of the sort range will be disconnected from the sorted data. This can be difficult, if not impossible, to repair.
Tip: DO NOT select anything in rows 1 thru 11 (above the purple header). They are never in the sort range. Also, there never should be a need to sort the Course information.
- 5) Start selecting the data from the upper left-hand corner of the range. Point to the **purple cell** in the header that contains "Email address". There are several ways to select data. The easiest may be to drag your cursor over to the last numbered column. That is the end of the data (the last column of scores) that's been entered so far, and then down to the last row containing a

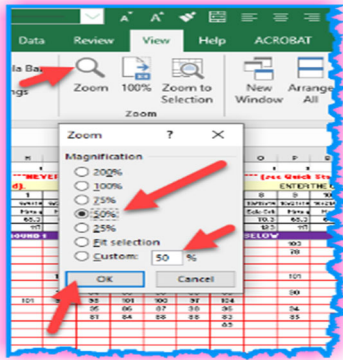


name. **Do NOT** select any blank rows below the last name. It is not necessary to sort all the blank columns! There are 500 data columns in this spreadsheet. Any column without a "Round" number at the top is blank. All columns to the right of that are also blank.

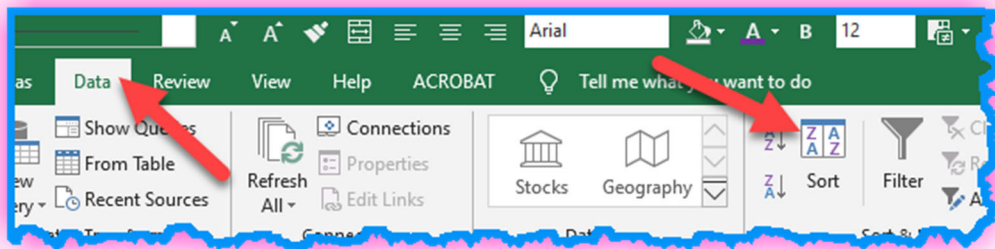
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Tip: Do not sort BLANK columns or the BLANK rows below the last golfers name.

Tip: Use the Zoom control shown in the screen capture to reduce the size of what you see on the screen. This will let you see more rows and columns and will make selecting the correct data easier. You may also use the "size" slider in the lower right-hand corner if your copy of Excel is set up that way.



6) Next, click on DATA in the tool bar at the top and select SORT. See screen capture below.



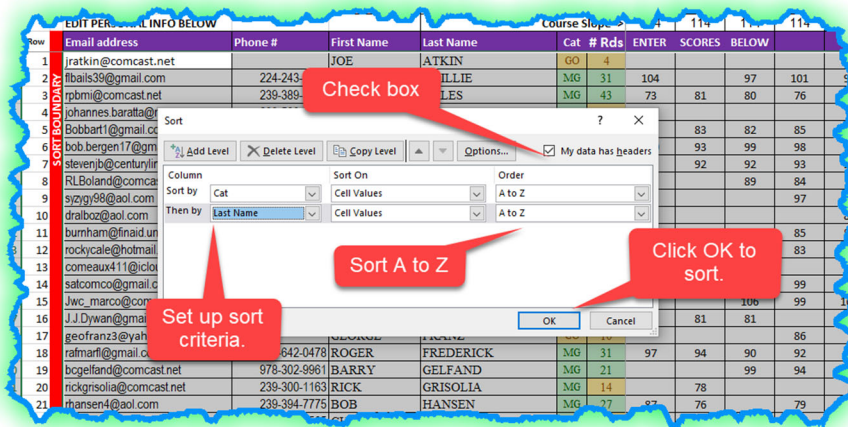
7) Now you need to set up your sort conditions. You are going to sort this range, with all the email addresses, phone#'s, names and golf scores, first by "Cat", and then by "Last Name" in each category. Both sorts are alphabetical order from A to Z. See screen capture.

-Check "My data has headers...VERY IMPORTANT.

-Under the dropdown menu select "Cat" for the first level of sorting. Add a second level of sorting and use the dropdown menu to select "Last Name"

Tip: If you don't see "Cat" or "Last Name" go back to the previous step & check the box that says "My data has headers".

-For both levels select sort "order" "A to Z"



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- 8) Click OK, and the sort is complete
- 9) **OPTIONAL SECOND SORT after completing the sort above.**
Suppose you want to list all the golfers in categories MG & GO together as one group, all sorted by last name. It's simple.
- 10) Follow the basic sort directions in steps 4-6 above, but this time only select the golfers, and all their info & scores for all rounds played, in categories MG & GO. Leave the category M golfers out of the sort. Now, in the sort criteria delete the first level of sort (Cat) so that you only sort the groups MG & GO together by last name.
- 11) This completes the process.

END OF APPENDIX B

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APPENDIX C HOW TO CHANGE AND REORGANIZE THE COURSE INFORMATION Tab “1B) Course Description”

OVERVIEW:

The description and ratings of any 4 selected Courses/tee boxes is on Tab “1B) Course Description”. All information can be changed, updated and/or reorganized. **ALWAYS** enter your new information in Table B. When you are satisfied, you copy all that info to Table A, which is linked to all the relevant formulas in the other tabs, including the 4 reports. The order of Courses on this tab will determine the order of Courses displayed on the reports. The values entered here will calculate the Course Handicaps.

Follow these steps:

- 1) Tip:** Before you change anything on this page it’s good idea to print the first page of Tab “5D) Handicap Report”. Label it as “original” and lay it aside. After you make your changes on Tab “1B) Course Descriptions”, reprint the first page of Tab “5D) Handicap Report” and ensure the that Handicaps for a given Course are the same on both reports.
Tip: Obviously this only works if the two reports have one or more courses in common and you haven’t changed that course’s ratings intentionally.
- 2) ALWAYS** create your course rating descriptions first on Table B. Make sure the order of the Courses is the way you want it on the reports and that the ratings & PAR for each course are correct. When you are ready, copy and paste the information to Table A. This Table A will determine how the Handicaps will be calculated and how the Reports will look.
Tip: The first 2 courses will appear on the reports that only show Handicaps for two courses. All 4 courses will appear on the other 2 reports.

TABLE B				
Scratchpad used to build the course descriptions				
USE THIS TABLE AS A STAGING AREA. SET UP THE COURSES AS YOU WOULD LIKE THEM TO APPEAR ON THE VARIUS REPORTS. THEN COPY THEM TO TABLE A at THE LEFT. DO NOT USE CUT AND PASTE.				
Course par	72	72	72	
Course rating	65.3	66.8	65.6	
Slope Rating	117	120	114	
Course Name	Lely Aqua	Lely White-Aqua	Hibiscus Gold	Unused

TABLE B				
Scratchpad used to build the course descriptions				
USE THIS TABLE AS A STAGING AREA. SET UP THE COURSES AS YOU WOULD LIKE THEM TO APPEAR ON THE VARIUS REPORTS. THEN COPY THEM TO TABLE A at THE LEFT. DO NOT USE CUT AND PASTE.				
Course par	72	72	72	
Course rating	65.3	66.8	65.6	
Slope Rating	117	120	114	
Course Name	Lely Aqua	Lely White-Aqua	Hibiscus Gold	Unused

Select and copy this data. Then paste it on to Table A.

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3) Go to the tab 5 reports and make sure they look the way you want.

Rounded up to whole number

Course Handicaps			
Golpher Category	Lely Aqua	Lely White-Aqua	Handicap
GO	15	17	
MG	27	29	

- 4) If not, go back to tab 1B, make changes to Table B and repeat the process.
Tip: It's critical that all the course information be correct. If it's not, the calculated Handicaps will be wrong, but it won't be obvious. You could have some really angry golfers to deal with.
- 5) When you are finished make sure the Table A and Table B are the same so they are ready for the next time changes are needed.

END OF APPENDIX C

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APPENDIX D

HOW TO CREATE A NEW BLANK ADJUSTED SCORES REPORT FORM FROM TAB 6

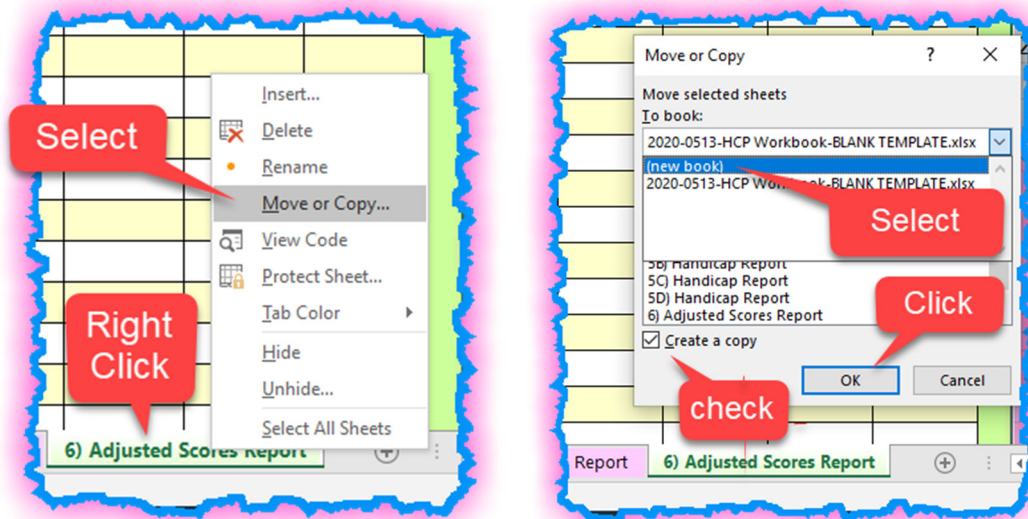
OVERVIEW:

The Handicapper needs to send the Scorekeeper a new blank “Adjusted Scores Report Form” after he has finished entering all the rounds played data, removed any inactive golfers, added any new golfers, updated & sorted the golfer’s information as needed.

The Handicapper creates a copy of Tab 6 on a separate spreadsheet, names it, freezes all the golfer information and the round numbers, protects the worksheet and emails it the Scorekeeper.

The Process:

- 1) **DO NOT FREEZE** any data on Tab “6) Adjusted Scores Report” while it’s still part of the main spreadsheet database. This information on this tab is being created by formulas and needs to remain active.
Tip: Wait until you have made a copy of Tab 6. Once it is a stand-alone spreadsheet you can do anything you like to it!
Tip: Depending on your version of Excel you may have to “Unprotect” the worksheet before you can make a copy. Right click on the tab at the bottom and click “Unprotect Sheet” only if necessary.
- 2) Make a copy of Tab 6. Right click on the tab. In the context menu select “Move or Copy”. In the box that pops up check “Create a Copy”. Under “To Book:” use the drop-down menu and select “(new book)”. Then click OK. See screen shots below.



Tip: You must check “Create a Copy”. Failure to do that will, by default, remove tab 6 from the database and **MOVE** it to Never-Never Land, never to be seen again! If that happens cross your fingers & use the “Undo” command immediately!

- 3) Now you have an independent copy of Tab 6 that’s ready to be conditioned as the new “Adjusted Scores Report Form” that will be emailed to the Scorekeeper.
Save this new spreadsheet under a unique name using the club naming convention,

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such as "2020-0515 Adjusted Scores Report Form"

Tip: There needs to be an agreement between the Scorekeeper and the Handicapper regarding file naming convention.

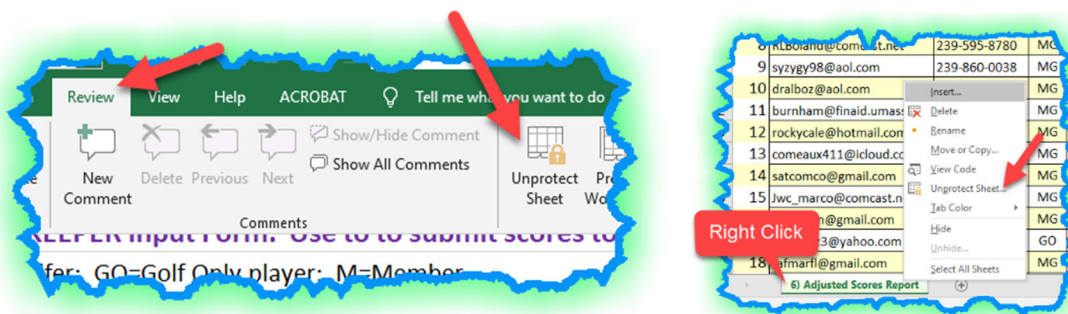
Best Practice: Instruct the Scorekeeper to rename the file with the current date & remove "Form" from the name just before he emails it to the Handicapper.

Example: "2020-0519 Adjusted Scores Report"

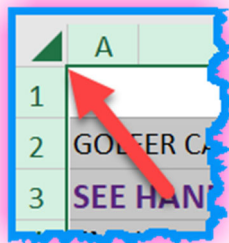
When the Handicapper gets the file back with all the data he can just save it to a folder along with all the previous ones. These could be re-used later in an emergency to rebuild a compromised database spreadsheet.

- 4) Next you're going to Freeze the cell values. All the cells will then only contain text. To enable doing that be sure that the **Adjusted Scores Report Form** you have just created is "Unprotected". You can do that by clicking on "Tools" (or by clicking on "Review" in later versions of Excel) at the top of your screen and then "Unprotect sheet" if necessary. An alternate method is to right click on the tab at the bottom and click "Unprotect sheet".

Tip: If the choice you see says "Protect sheet" your sheet is already Unprotected and you are good to go!



- 5) Click the arrow in the cell at the intersection of the columns and rows in the upper left-hand corner. This will select all 17.2 Billion cells in this Worksheet (no foolin')! See screen capture.

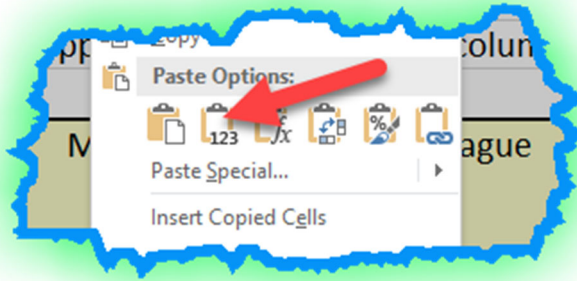


- 6) Point to anywhere in the worksheet, right click, click copy, and then click **paste values**. All formulas have now been replaced with their values.

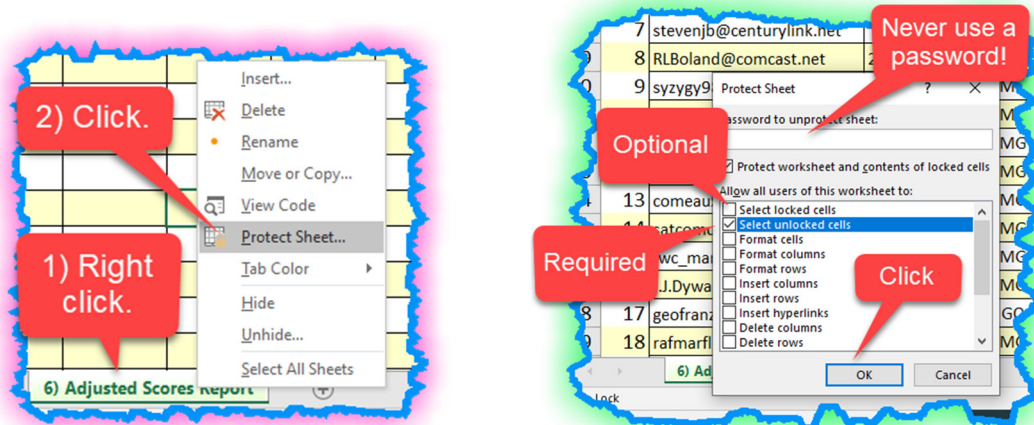
Tip: You must select **PASTE VALUES**, not just the ordinary Paste. The ordinary paste

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command will paste the formulas back where they were, defeating the whole process.



- 7) Protect the spreadsheet (recommended before emailing it to the Scorekeeper. When protected the Scorekeeper will not be able to change of the golfers information or the "Round" numbers. To protect the sheet, click on "Tools" (or by clicking on "Review" in later versions of Excel) and then "Protect sheet". An alternate method is to right click on the tab at the bottom and click "Protect sheet". DO NOT ever add, or use, any password.



Tip: Teach the Scorekeeper how to "Unprotect" the spreadsheet when needed, such as when he has to add new members.

- 8) Before saving the blank form make sure that the three pink cells are positioned as shown in the screen capture below. The spreadsheet will open in the view as it was last saved. If, for example, you save it with golfer #50 scrolled up to the header that's how it will open. The scorekeeper may never realize that there are 49 members above the "top" line that he sees. Also make sure column G is visible so the scorekeeper will add the first round of scores in DATA COLUMN #1,

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	B	C	D	E	F	G	H	I	
2		CLUB SCOREKEEPER Input Form.				Use this form to subm			
3	GOLFER CATEGORIES: MG= Member Golfer; GO=Golf Only player; M=Member								
4	SEE HANDICAPPER TO ADD OR SORT NAMES					After submitting data to Ha			
5	EMAIL to Handicapper before 10 entries.					ENTER DATE, COUP			
6	Data columns=>					1	2	3	
7	Handicapper: Do NOT copy blank columns to Tab1-Scoresheet Input					OLDEST	<===		
8						Round Number=>	63	64	65
9	Marco Men's Club Golf League Handicap Calculator Version 2020-0524					Dates Played=>			
10						Course Name=>			
11						Course Rating=>			
12						Course Slope=>			
13	Row	Email address	Phone #	Category	Name	SCORES	SCORES	SCORES	
14	1	jratkin@comcast.net		GO	ATKIN, JOE				
15	2	flbails39@gmail.com	224-243-0900	MG	BAILLIE, DOUG				
16	3	rpbmi@comcast.net	239-389-5587	MG	BALES, RON				
17					BALES, RONNES				

- 9) Now save the spreadsheet under its unique name and email it to the Scorekeeper.
 Tip: You might want to use two folders. One for the blank Adjusted Scores Report Forms and the other for the completed Adjusted Scores Reports.

END OF APPENDIX D

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APPENDIX E DISASTER RECOVERY

How to copy your data from the damaged Spreadsheet to a new one.

Terrible things sometimes happen to people when working with spreadsheets! No one wants to lose their data. Of course, the first thing to do is have good discipline and file management. Save your work frequently. Prior to each editing session save your spreadsheet under a new name, using the next available date. For example, if you opened the spreadsheet 2020-0505 HCP.xlsx this morning immediately re-save it as 2020-0506 HCP.xlsx. Then start updating it. If you screw up a sort by failing to include all the columns, and then saved it, undo will not work. You are truly screwed...there is no way to fix this spreadsheet. Delete it and open the previous version (2020-0505) that you cleverly saved. All you have lost is part of one day's input. Follow all the guidelines on page 1 of this document.

But what do you do when you make a mistake? Perhaps you have deleted a Tab in the spreadsheet by mistake? Or you CUT and pasted something, even though you were warned, again and again not to do it? The reports are all screwed up. Formulas somewhere have been damaged. There's over a quarter of a million formulas in this spreadsheet. Finding the problem is a daunting, if not impossible task.

The first line of recovery is to use the UNDO function. This will let you back up your steps one by one to the last time you saved the spreadsheet. But not everything can be undone. If you or the "Autosave" feature saved your spreadsheet just after you screwed up you can't even back up one step.

Let's assume something went wrong, but you didn't notice the problem right away and saved your spreadsheet. Undo will no longer work. What to do?

OVERVIEW:

You are going to copy all your data from Tabs 1A&1B of the damaged spreadsheet to Tab 1A&1B of the "fresh" copy!

The Process:

- 1) Contact the author for instructions on obtaining a fresh spreadsheet without any data. Contact Ed Crane, marcoman357@aol.com.
- 2) Rename the blank spreadsheet using the MMC naming convention with a future date (2020-0410 -HCP Workbook.xlsx) to avoid confusion.
- 3) Open both the damaged spreadsheet and the "new" blank spreadsheet on your computer at the same time.
- 4) **Optional:** If you are an Excel power user, and have a large monitor, you can open both spreadsheets at the same time and view each in half of the screen. This is handy but not necessary.

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- 5) Now, with the following 4 steps we are going to copy all your precious data from the damaged spreadsheet to the new one.
- 6) First, on Tab 1A, select all the data starting at the first golfer's email address. Do NOT include the header in the row above.

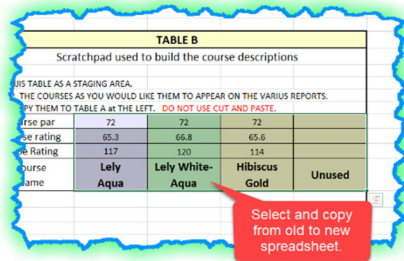
10			
	Row		
11		Email address	Phone
12	1	jratkin@comcast.net	
13	2	flbails39@gmail.com	224-243
14	3	rpBMI@comcast.net	239-389
15	4	johannes_baratta@me.com	239-59

- 7) Select all the data from that cell to the far lower right-hand corner of the last round of data recorded.
- 8) Point to the range you just selected and copy it.
- 9) Go to the new Blank spreadsheet and paste the data back into the same area.
 Tip: You only have to click on the single cell in the upper left-hand corner of the range (where the first golfer's email address will go) and click paste. It is not necessary to select the entire range. In fact, if you try to do so, you'll probably get an error message.
- 10) Now repeat step 8 for all the course information for all rounds played. Start in the upper left-hand corner of Round 1 (cell J7). Include the "Round" number.

	H	I	J	K
D. CAPACITY: 125 GOLFERS				
Column #'s =>			1	
Member				
PLEASE READ => ***NEVER USE CUT AND PASTE				
DO NOT ENTER DATA IN TH				
Round Number=>	1	2	3	
Date Played=>	3/4/19	3/11/19	3/18/19	
Course Name=>	Hibiscus	Hibiscus	Hibiscus	
Course Rating=>	65.5	65.5	65.5	
Course Slope=>	114	114	114	
Cat # Rds ENTER SCORES BELOW				
GO	4			
MG	31	104		97

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- 11) Now go to tab "1B Course Description". Copy all the data in Table B of the corrupted spreadsheet to Table B of the new spreadsheet. Then copy Table B of the new spreadsheet to Table A of the new spreadsheet.



The screenshot shows a spreadsheet table titled "TABLE B" with the following text: "Scratchpad used to build the course descriptions", "USE THIS TABLE AS A STAGING AREA.", "THE COURSES AS YOU WOULD LIKE THEM TO APPEAR ON THE VARIOUS REPORTS.", and "COPY THEM TO TABLE A at the LEFT. DO NOT USE CUT AND PASTE." The table has columns for "Course Name", "Par", "Rating", and "Handicap". A red callout box points to the cell containing "Lely White-Aqua".

Course Name	Par	Rating	Handicap
Lely Aqua	72	65.3	117
Lely White-Aqua	72	66.8	120
Hibiscus Gold	72	65.6	114
Unused			

- 12) That completes the process. With any luck you are back in business. Be more careful next time. Follow the rules! Use this new spreadsheet going forward.

END OF APPENDIX E

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APPENDIX F NEW WORKBOOK

HOW TO CREATE A NEW BLANK WORKBOOK (Without losing current handicaps)

At some point you will approach running out of available columns for new scores. Each workbook holds 480 columns of data.

Before that happens (or at any time you decide to archive the current information and start a new workbook database) follow the instructions in this Appendix to create a new blank workbook to transition smoothly from the old one to the new one without losing any golfers information (name, email address, handicap index, handicaps, etc)

BACKGROUND

The Master Workbook Template is stored in multiple places. For this Appendix we are going to use the Template stored in the "Restricted Document" section of the MMC website. Scroll down to item 3B. Access to this restricted area requires the following credentials: mmc + board. The Master Workbook Template and this tutorial are stored there and can be downloaded. See items 19 + 20 in the restricted area.



This is a relatively simple process. It requires you to copy information from the old (i.e. Current) workbook and "Paste Values" into the new blank one. It's really that simple!

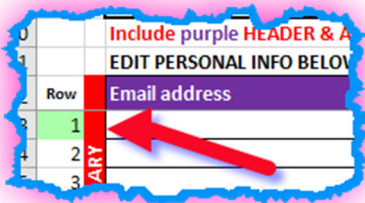
The result is a new Workbook with all of the previous Golfer information & Handicap results, and 480 blank columns for future adjusted scores.

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For this discussion, **Current Workbook** is the active Golf Handicap Workbook (spreadsheet) that you wish to archive. The **New Workbook** is the blank template downloaded from the MMC website that starts out with no data, and will become the **New Workbook** you use going forward.

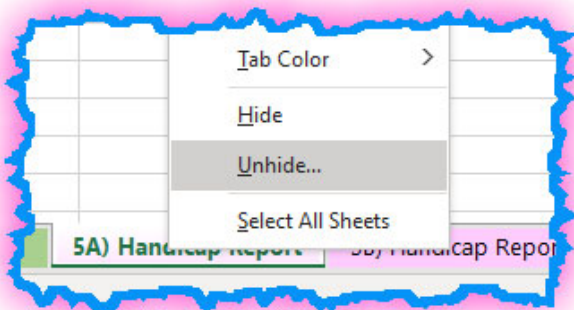
Please follow these steps:

- 1) First open the **Current Workbook** in Excel.
- 2) Use your browser to access the restricted area on the MMC website and download a copy of the **New Workbook** template. Open it in Excel and enable editing if asked.
- 3) This is a good time to close any other open Excel spreadsheets so you don't get confused.
- 4) The first thing we are going to do is to copy all the Golfer information from the **Current Workbook** to the **New Workbook**. Open the **Current Workbook** in Excel and select "Tab1A) Score Keepers Input". Unprotect the tab if necessary. Make sure you scroll up to Row 1, Golfer number 1. (See screen capture below) Select all the golfer information (email address, phone number, first name, last name & cat) Do **NOT** select "Number of rounds".
It's very important NOT to select the formulas in the "Number of rounds", column '#Rds'.
Right click & Copy the data.
- 5) Open the **New Workbook** to Tab1A). Unprotect the tab if necessary and paste all the golfer information into the corresponding space, making sure you have scrolled up to golfer #1.
Tip: To copy a large block of data go to the upper left-hand cell, right click it and click PASTE. Paste values is not required for this step.

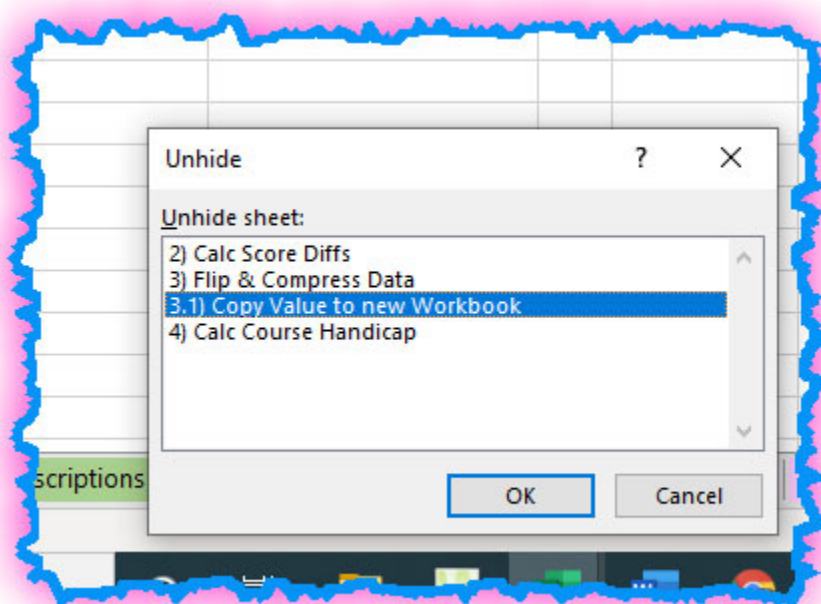


- 6) Now we are going to copy the last 20 score differentials from the **Current Workbook** to the **New Workbook**. The last 20 score differentials are the basis for all Handicap calculations. Not every golfer will have necessarily play 20 rounds, and that's not a problem. It is taken into account during the handicap calculations.
- 7) On the **Current Workbook** point your cursor to any tab in the row at the bottom. Right click and click 'Unhide' in the context menu.

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- 8) From the popup menu select “Tab 3.1 Copy Value to new Workbook” to unhide it. Click OK.



The table on Tab 3.1 of the **Current Workbook** has all the last 20 scores differentials for all golfers. This data is the basis for the calculation of all handicap indexes and all handicaps. We are going to COPY this data from the **Current Workbook** & use “PASTE VALUES” to paste it into the **New Workbook**. Once this is done, all 4 reports in the “Tab5A-D)” sections will be exactly the same (except for the number of rounds played) whether you print them from the **Current Workbook** or the **New Workbook**. In the **New Workbook** you will now have 480 blank columns to populate with future adjusted scores. The first time a golfer’s score is entered, his new Handicap results will be based on 19 score differentials from the table (the oldest one is dropped) and one new score differential calculated from the round just played. After that golfer has played 20 rounds, he will not be using any of the imported score differentials in the table. BUT **NEVER DELETE** OR EDIT THOSE SCORE DIFFERENTIALS in the first 20 columns. Some golfers in this workbook may take years to play 20 rounds!

- 9) Open the **Current Workbook** and select Tab 3.1. Unprotect the tab. Select and Copy all the data in the box, including the blank rows, if any.

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historical record, and only the government is allowed to rewrite history!

Now that wasn't so bad, was it? You can repeat this process in a year or two when the workbook you just created begins to fill up.

END OF APPENDIX F

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APPENDIX G HOW TO RECOVER FROM A #REF! ERROR

We all know and love the CUT command. Personally, I use it all the time in Word and other applications. CUT a bunch of stuff out of a paragraph and PASTE it somewhere else. What a wonderful tool. Right?

Wrong when it comes to complex Excel workbooks! (or even simple ones!!)

Here's what Google has to say:

Here is a simple table for ease of reference:

	Copy and Paste	Cut and Paste (or Drag and Drop)
References to other cells	Treated as relative unless dollar sign is used on the original reference, as this forces Excel to treat the reference as absolute.	All references treated as absolute.
Cells referring to the moved cell	No change. These still refer to the original location of the cell.	All formulae referencing the moved cell are amended to refer to the cell in its new position.

One of the biggest risks caused by not understanding this difference is users cutting and pasting, or dragging data within a data entry table, when formulae are looking along the row. For example, if a user drags the data in row 3 down to row 4 (maybe to make room to enter some new data in row 3), then all of the formulae referring to row 3 will now refer to row 4 (as will the formulae on row 4 that already refer to that row), however none of the formulae will refer to row 3.

Unfortunately, Excel does not provide an option to disable cut and paste, so users must be encouraged to always copy and paste instead (the contents of the original cells can then be deleted).

Be careful out there!

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CUT & PASTE is bad enough on a single worksheet. It causes subtle problems. Excel provides very little help to identify issues or correct problems. You can wreck a worksheet to the point where the damage can't be undone.

However, in a database environment where data is entered on one worksheet and then referred to from a different worksheet(s) CUT & PASTE is extremely (1000X) more damaging and results in **#REF! error messages** and chaos.

When you see #REF! pop up in your database run for cover, because the sky is falling!!

So, please don't ever use the CUT command on any spreadsheet.

Ah, but because you are reading this and have tears in your eyes I suspect it's too late. You screwed up and are expecting to be punished?

Well, I figured this could happen. So, I built-in a recovery tool that stands a good chance of repairing your damaged spreadsheet. But you probably can't do it yourself. You'll need to consult a High End Excel Expert. Some Geek who finds spreadsheets entertaining.

To the Geek:

This workbook appears to be magical. You enter a bunch of golf scores on the first tab and then print one of 4 'reports' that display the Golf Handicaps for up to 125 members on 4 different courses. How can that be?

Hidden from view are four tabs that are the 'engine' doing all the complex math and data manipulation to arrive at the Handicaps, while following the endless number of rules and regulations in the golf world.

The first, and most important thing happens on tab2.

Over 62,000 formulas create a duplicate table of data that is an exact copy of all the data on tab1. ALL of the subsequent processing pivots off of that table. No additional data is pulled directly from the data input (Tab1). Now when some reckless Handicapper person **CUTS & PASTES** all over tab1, only to find that all the reports have exploded and gone crazy, we have a buffer. The copied table on tab 2 takes the brunt of the abuse. It may have countless #REF! errors. These errors screw up all of the rest of the calculations and data manipulations, resulting in the damaged reports.

What to do.? Countless formulas on tab2 have been permanently modified by Excel to follow the CUT&PASTE commands. (See the table above).

Here's a real time example.

The Handicapper decided he had entered some scores in the wrong column, so, CUT them from round 7 and PASTED them into round 6 to the left.

Well, back on tab2 we have a mess. See screen capture.

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4	5	6	7
12/10/21	12/10/21	12/13/21	12/17/21
biscus Gold	biscus White	biscus Gold	biscus Gold
65.5	69	65.5	65.5
114	125	114	
0	93	0	88
0	0	0	0
0	0	0	0
0	0	#REF!	102
0	0	#REF!	0
0	77	#REF!	75
0	0	#REF!	0
0	97	#REF!	97
0	0	#REF!	99
0	0	0	0
0	0	0	0
0	90	0	90

What to do? Remember, tab 2 is all formulas. What you see is the result of the formulas. So, if we can fix the formulas all should be well. Fortunately, this is a logically structured table. Everything is sequential. We can select the formulas to the right, left and/or top and bottom and paste them over the damaged area. Be generous. The damaged formulas may not be obvious.

3	4	5	6	7	8	9	10	11
12/06/21	12/06/21	12/10/21	12/10/21	12/13/21	12/17/21	12/17/21	12/20/21	12/20/21
biscus Gold	biscus White	biscus Gold	biscus White	biscus Gold	biscus Gold	biscus White	biscus Gold	biscus White
65.5	69	65.5	69	65.5	65.5	69	65.5	65.5
114	125	114	125	114	114	125	114	125
87	0	93	0	88	89	0	90	
0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	
98	0	0	102	0	0	0	106	
0	0	0	0	0	0	0	0	
75	0	77	75	0	77	0	72	
0	0	0	0	0	0	0	95	
0	0	97	97	0	103	0		
99	0	0	99	0	0	0	text	text
0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	
83	0	90	0	90	92	0	0	
78	0	83	0	88	86	0	82	
0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	

All the errors have gone away, and the date structure is back in business. Note that this did not undo the cut and paste. Indeed, it made the rest of the spreadsheet conform to it.

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END OF APPENDIX G

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APPENDIX H OVERVIEW OF THE ENTIRE PROCESS

The purpose of this APPENDIX is to give folks a high level Overview of the process and how this Workbook fits into that process.

THE PROCESS

- 1) The golfer plays a round of golf and writes his score on a score card.
- 2) The Score Keeper collects these cards of raw scores. He applies some 'spin' to the scores and conditions them to result in the Adjusted Scores. He enters the Adjusted Scores associated with each golfer on the latest Adjusted Scores Report spreadsheet provided by the Handicapper. The Adjusted scores report can hold up to 10 rounds of golf. More on that report later.
- 3) The Score Keeper attaches a completed Adjusted Scores Report to an email and sends it to the Handicapper at his discretion, but at least by the time he has filled in 10 rounds of data.
- 4) The Handicapper processes the Adjusted Scores Report by copying (remember, NEVER CUT&PASTE) all the data (Adjusted scores, course information and round numbers) and PASTING THE VALUES. Into the appropriate columns on Tab1. Pasting values is important to preserve the formatting on Tab1. If you use just Copy & paste it Excel will overwrite the formatting on Tab1.
- 5) This is good time for the handicapper to make changes in the golfer's information, add or remove golfers
- 6) After making any adjustments to the golfers in the step above, the Handicapper then extracts a copy of a new Adjusted Scores report from Tab6. It's important that he do this AFTER posting the new Adjusted Scores & making the changes in the previous step, because the Round Numbers at the top of the Adjusted Scores report are automatically updated to start at the next blank column on tab 1.
- 7) See Appendix D for all the details on creating blank Adjusted Scores report.
- 8) The Handicapper attaches the extracted Adjusted Scores Report to an email and sends it to the Scorekeeper.
- 9) At this point the Handicapper may want to adjust the course descriptions on Tab1B and print reports from tabs 5A thru 5D for distribution to the Golfers.
- 10) Now we are going to discuss the **magic** that goes on inside this Workbook to turn Adjusted Scores into Handicaps. The process is fully automatic and requires no user intervention. In fact, the tabs that do all the work are 'hidden' and protected. It's best to keep it that way.
- 11) The first step automatically makes a copy on Tab 2 of all the score data on Tab 1. All the processing and number crunching will start from this copy so as to protect the original data. This table on Tab2 is also helpful when trying to recover from a foolish use of CUT & PASTE. See appendix G.
- 12) On Tab2 formulas use the Adjusted Scores and the course data to create a table of Score Differentials.
- 13) On Tab3 we copy the entire Score Differential table from Tab2 and flip it horizontally so the last column of score differentials (round 500) is now at the left of the table. The next step is to

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remove all the blank cells in the entire table by using array formulas to shift all the score differentials to the left one by one, forcing all the blank cells to the right.

It's important to note that at this time we no longer have data by rounds played. We just have Score Differentials for each golfer organized so their most recent Score Differential is in the left-hand column. The next column has the 2nd most recent Score Differential, and so on. This sets the data up for further processing.

- 14) On Tab4 we use the table generated on Tab3 to calculate the Handicap Index and ultimately the individual golfer handicaps by various courses. The information on this tab provides all the data for the reports.
- 15) Eventually this Workbook will begin to fill up. It only accommodates 480 rounds of golf. The following discussion explains how we are able to migrate to a New Workbook with 480 empty columns ready to be populated, without losing any of the current golfer's handicap information.
- 16) The key is that we only need the last 20 rounds of golf played for each golfer to calculate all the Handicaps. We could do some processing and capture those last 20 rounds of scores, but why do that? We already have, in the current Workbook, on Tab3, a table with all the Score Differentials calculated, compressed, and left justified with the most recent data in the left-hand column.
- 17) Tab 3.1, added in Sept 2021, uses the 20 left-hand columns of Score Differentials on Tab3, flips it horizontally so the most recent data is now in the right-hand column. This is an automatic and dynamic process. As the Score Keeper adds a new column of Adjusted Scores to Tab1, the score differentials in the table on Tab3.1 will shift one column to the left, golfer by golfer, so that the new Score Differentials just calculated will appear there. Tab3.1 is completely automatic and is always up to date.
- 18) What does this mean? In **any** future Workbook you will always have, at any time, and without any user intervention, a table of the last 20 score differentials for each golfer. To create a New Workbook with empty columns all you need to do is to copy those 20 score differentials to the new workbook.
- 19) To keep things simple, the first 20 columns of data on Tab1 are reserved for the data copied from Tab3.1 of the previous Workbook that is about to fill up. This is the key to the transition. Any time you want to create a new Workbook you copy the Tab3.1 data from the PREVIOUS Workbook. Once you have done that never add any new data to the 'old' Workbook.
- 20) Needless to say, there's never more than one active Workbook for the Handicapper to use. All prior Workbooks are closed and archived.
- 21) This process is seamless and can be repeated forever without ever having to 'start over'. A golfer's handicap data is never lost.
See APPENDIX F for the details of the process to create a new Workbook.

END OF APPENDIX H

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APPENDIX I ALERTS AND ERROR MESSAGES

This database has more than 65,000 data elements. Finding an error in that matrix of numbers can be a daunting task! To help with that the workbook has a couple 'tools' that run in the background.

These will help you locate and correct some common errors.

The **FIRST TOOL** looks for any **non-numeric** entries (i.e. text, spaces, or hidden characters) in the entire matrix. Each time you hit 'return' Excel checks all 65,000 cells (before you can get your finger off the keyboard). If it finds even a single cell that violates the criteria all hell breaks loose! It's important to understand that just looking at a cell is inadequate. An apparent blank cell can be a null cell, a cell with a space in it (like when you select a cell and touch the space bar), a cell with text that's the same color as the background & other things, all of which are covered by this tool.

Here's an example. A screen shot of tab1 with some errors introduced. Each 'blue' cell has one of the error types. Notice that the naked eye can only 'see' one of them. What would be the chance of finding those errors on your own? Zero, I'd guess.

The screenshot shows a spreadsheet titled "GOLF HANDICAP CALCULATOR CREATED BY ED CRANE, APRIL 2020. CAPACITY: 125 GOLFERS". A large red error message is displayed in the center: "STOP: You must find and clear the cells with spaces or text. Use 'Clear Contents' or 'Delete'. ERROR: ONE OR MORE CELLS HAVE TEXT IN THEM. Scroll right. Total number of errors=> 4".

Callouts explain the error types:

- Huge RED error message telling you to stop and fix the problem, and how to do it.** (Points to the large red error message)
- COLUMNS with errors flagged and quantity of errors per column indicated.** (Points to a column of cells with error counts, e.g., 2, 1, 1)
- ROWS with problems flagged. The number tells you how many problem cells there are in each row.** (Points to a row of cells with error counts, e.g., 1, 2, 1)
- Blue cells have an error in them.** (Points to blue cells in the data table)

Err	Row	Email address	Cat	# Rds	SCORES	SCORES	SCORES	SCORES	SCORES
	6	prbmi@comcast.net	MG	178	72	80	79	75	78
	7	Bobbart1@gmail.com	MG	52	95	87			87
1	8	bob.bergen17@gmail.com	MG	112					
2	9	stevlenjb@centurylink.net	MG	78		text			
1	10	RLBoland@comcast.net	MG	43					
	11	iggyb@aol.com	MG	58					
	12	alralboz@aol.com	MG	133					90
	13	ken@fnaid.umass.edu	MG	132	82			89	
	14	steve@fnaid.umass.edu	MG	13					82
	15	ray@fnaid.umass.edu	MG	24					
	16	jimc@fnaid.umass.edu	MG	25					
	17	comes@fnaid.umass.edu	MG	22					
	18	shcooke@fnaid.umass.edu	MG	64					
	19	jeffersonj@fnaid.umass.edu	MG	43					
	20	satcomco@fnaid.umass.edu	MG	88					
	21	jaycee@fnaid.umass.edu	MG	10					100

Each of these problems will cause errors in the calculations and will affect the players handicap. Excel will interpret each of these cells as a round played with a score of zero. The impact can be subtle or catastrophic. You MUST fix these before proceeding.

Marco Men’s Club Golf Handicap Calculator

The tool will take you to the specific column and row location of the cell with the error. All you have to do is to ‘clear contents’ of each flagged cell. As you do that notice that the RED flags for the rows and columns clear themselves. Once you cleared all the issues the huge RED error message in the upper left corner will disappear and the regular header will return.

The **SECOND TOOL** is an ALERT that draws your attention to a possible issue with the values entered for the Course Rating & the Course Slope. You need to review it and either accept the entry or fix it. This happened in an actual spreadsheet where the entries were flipped. A player alerted us to a dramatic change in his handicap after playing a recent round. We discovered that the rating and slope values had been reversed. This is an easy typo to make as data is entered. A similar thing could happen if, say, a course rating of 55 was entered as 555.

We used values of these two course characteristics from a full database with 480 entries. As you can see in the table below, for example, the Course Ratings ranged from 61.2 to 71.7, with an average value of 66.5. We arbitrarily set the threshold at 5 points below the minimum and 5 points above the maximum. Any number outside of that range will cause the cell to change color as shown below with the test values.

Whenever you see RED or GREEN cells for the Course Rating or Course Slope you need to investigate to make sure that you have the right number.

Course Rating & Course Slope ALERT System							
BASED ON 479 ACTUAL DATA POINTS from 2022-2023							
	LOW TEST VALUE	low threshold	min value	max value	hi threshold	HI TEST VALUE	avg
Course Rating=>	55	56	61.2	71.7	77	78	66.5
Course Slope=>	97	98	103.0	136.0	141	142	117.3

Disclaimer: This is just an alert for gross errors. It will not catch all input errors. A clean process and due diligence in collection and entering data is the best practice.

END OF APPENDIX I