

Technical Notes

The following section contains several technical notes about the MacCheckout software.

(Note: These notes go into detail about the 'Help' system and 'File' formats. It is likely that you will never need to use the data contained in these notes.)

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Help System

All the 'Help' information for the system is contained in one file, 'MacCheckout.Help'. This is a text file and can be opened by any word processor. The file was created in such a way that you can modify it, if you feel that the data on file is not clear enough, too verbose, or if you want to remove some items, or create your own.

If you open the file in a word processor, you will see that it begins:

About MacCheckout...

This displays the about box for the application. It describes who created the software, the registered owner and serial number for this copy of the software.

Accessories...

etc.

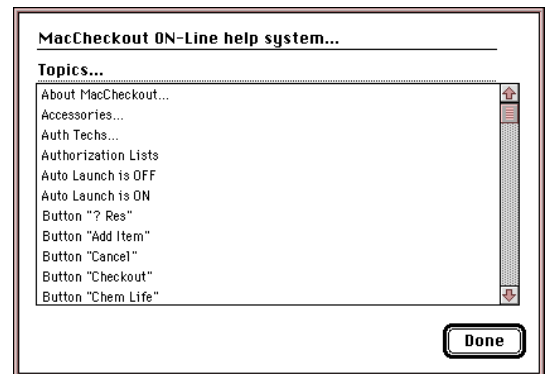
Topic Title

Each topic that appears in the 'Help' Dialog must be on its own line with a return character at the end, e.g. 'About MacCheckout...'

Topic Data

The data that follows next is the 'Help' information that will be displayed if that topic is chosen. The data cannot have lines of text longer than five inches or it will be cropped when it is displayed in the dialog.

(*Note*: I was lazy implementing the code here and used the 'List Manager' instead of 'Text Edit'. I will correct this at some time in the future.)



Topic End

To denote the end of the text for the Topic, you leave a blank line before listing the next Topic title, e.g. 'Accessories...'

(*Note*: This means you cannot leave blank lines in the actual text that will be displayed when the Topic is selected, e.g. To denote paragraphs. This would throw off the code and it would think that the second paragraph would be the start of the next Topic. You can simulate blank line however. If you display the 'Help' for 'Accessories...', it would seem that there are two paragraphs. This was done by using three spaces ' ' to denote a blank line.)

Warning:

When you select 'Why / What...' the cursor changes to a cursor with a '?' attached to it. When you select a menu item or screen, the 'Help' for that item is displayed. The 'Help' 'Topic Title' must match exactly the name in the menu bar for the 'Help' system to be able to find it. Similarly, when you click on the screen, the

code looks for the appropriate 'Page' item, e.g. 'Page "Unlaunched" '. If it cannot find the item, it will report that there is NO 'Help' on file for that item.

Warning II:

When you 'Save' the modified 'Help' file in your word processor, you must save it as a 'Text Only' file. The system will not recognize it if you do not do this.

Example: To change to current 'About MacCheckout...'

About MacCheckout...

This displays the about box for the application. It describes who created the software, the registered owner and serial number for this copy of the software.

Accessories...

etc.

Add any phrase you like. (Hopefully pleasant.)

About MacCheckout...

This displays the about box for the application. It describes who created the software, the registered owner and serial number for this copy of the software.

A nice program, that does the job it was intended to do.

Accessories...

etc.

(Note: Keep the file in plain text. Bold is used here to highlight what is being added.)

'Save' the file and bring up the 'Help' System. Select 'About MacCheckout...' and you will see the data you have added.

You can add your own topics if you follow the rules on the previous page. All the Topics are in alphabetical order, so you should add your items at the appropriate location in the file. It makes it easier for the user to find the item also.

The file format was left simple enough to enable you to make changes as required.

(Note: Remember any changes you make, since the 'Help' file will be updated in future versions. This will enable you to impliment your changes in the new files.)

File Formats

All the files that MacCheckout creates use the same format, with the exception of 'MacCheckout.Equipment' and 'MacCheckout.Help'. (The latter has already been described.) 'MacCheckout.Equipment' will be dealt with in the next section. (See 'File Format: MacCheckout.Equipment'.)

The file format has been kept very simple to enable users to recover their data in the event that there is a file error or some data gets corrupted. Which will hopefully never happen. If you can get the file from the hard disk then you should be able to recover most, if not all your data.

You will need a word processor that can 'Open' any file types, e.g. 'Microsoft Word' provides an 'All' option in the 'File Type' menu. Selecting that will allow 'Word' to open any of the MacCheckout Files.

As stated above, most files follow the same convention. A record for a person will be used to explain it.

1.PRSN 225	<i>Start of record</i>
2.0000000	<i>ID number</i>
3.Robertson	<i>Last Name</i>
4.Maxwell	<i>First Name</i>
5.207 Greystone Rd	<i>Address</i>
6.	<i>Apt #</i>
7.Carlisle	<i>City</i>
8.IL	<i>State</i>
9.12345	<i>Zip</i>
10.123-1234	<i>Phone #</i>
11.123-12-1234	<i>Social Security #</i>
12.Employee	<i>Status</i>
13.Overnight Access	<i>Overnight Access</i>
14.Open	<i>Access</i>
15.25/12/03	<i>Limit</i>
16.10	<i>Days in Advance</i>
17.mrobertson@hotmail.com	<i>Email Address</i>
18.MMDADA	<i>Department</i>
19.15/12/03	<i>Ban Until</i>
20.	<i>Not Currently Used</i>
21.LIST 0	<i>Reservations</i>
22.	
23.LIST 25	<i>Authorizations</i>
24.P - COLOR DARKROOM,AUG03	
24.	
25.LIST 0	<i>Not Currently Used</i>
26.	
27.PRSN 82	<i>Next Record</i>

(*Note*: The numbers and the text in italics are NOT part of the file. They have been added to explain what each line means.)

Each record starts with a four (4) letter code. For the people file, the code is 'PRSN'. There is a space after it followed by a size. The size designates the number of characters in the record, e.g. 225.

This size includes all characters starting at (and including) the 'P' in 'PRSN 225' on line 1, up to (including) the return character just before the next 'P' on line 27. (**Note:** It is VERY important that this is correct or else the record will not be read in correctly. Either too much or too little data will be read in. This will not cause a problem until the data has to be saved again. Then the file may not be updated correctly.)

A persons record starts with the 'PRSN ' and size and then is followed by sixteen (16) lines, each line has a return character on the end.

There then follows three (3) 'LIST' records. The 'LIST' is followed by a space ' ' and then the size. The size denotes how many characters are contained in the 'LIST', e.g. 25.

(**Note:** The size of the list is the number of characters in the list. IT DOES NOT include the 'LIST 25' data in the size as the 'PRSN 225' does. This is very important to note.)

Each line in the list has a return character at the end and those characters are included in the total. As can be seen from the example, the 'LIST' size for 'Authorizations' is 25. If you count the characters in 'P - COLOR DARKROOM,AUG03' it will only come to 24. Character 25 is the return at the end of the line.

Each 'LIST' is separated by a return character. This character only affects the size of the 'PRSN' total.

All these parts put together supply a complete record for one person. This is replicated for the number of people in the system.

Warning:

If you ever manually modify a MacCheckout file in a word processor, you MUST save it as a 'Text Only' file. Otherwise MacCheckout will not be able to read it. When you open MacCheckout, you can verify the file and see if the system thinks the data is good. If not you can use the error message reported to track down the problem and fix it.

You should never need to use this. This data is included just in case.

(**Note:** This file format is not very efficient but it was kept as simple as possible to enable users to recover as much of their data a possible in the event bad things happened to their system.)

All the files:

MacCheckout.Agree	<i>AGMT</i>
MacCheckout.Class	<i>GRUP</i>
MacCheckout.Fines	<i>FINE</i>
MacCheckout.People	<i>PRSN</i>
MacCheckout.Pref	<i>Not Applicable, see note below.</i>
MacCheckout.Schedule	<i>GRUP</i>
MacCheckout.UsageLogs	<i>USGE</i>
Resale->???,????	<i>GRUP</i>

follow these rules. The only thing that changes is the four (4) letter code denoting what type of record it is. Each code is noted beside the file name in italics.

(**Note:** 'MacCheckout.SystemReport' and 'MacCheckout.Override' are not crucial files and are updated daily. They are just lists of data that is then laid out as needed when requested. Even if something went wrong with either of these files, the system would just create a new one the next time it was needed. 'Repair Log->???,????' is also a list of data. Each line of the list will contain the equipment number and the date it was taken Off Line, or the equipment number, the date it was brought back On Line, and what was wrong with it.)

(**Note:** 'MacCheckout.Pref' is made up of 216 lines of text with a return at the end and 31 'LIST' items. This file is easily recreated, so each item is not covered here. If something goes wrong, just delete the file. MacCheckout will create a new one when the system starts up. You can then enter the preference settings as needed. You can also keep a master backup of just the preferences file. You can then use it to replace the corrupted one.)

Note: You will probably never need to use this information but is included just in case.)

File Format: MacCheckout.Equipment

The file format for the Equipment records follows similar rules as the other files with one added item.

The Equipment is split into 'Types'. Under each 'Type' there are all the Equipment ID numbers associated it with it. This is the difference. The opposite page has a complete Equipment record and also illustrates how it fits into the Equipment Type.

(*Note*: The line numbers '1' to '42' and the italic text are not part of the file format. They have been added as reference numbers and to explain what each part of the file does.)

The Equipment Type extends from line 1 starting with (and including) the letter 'G' in 'GRUP 906' and extends to (and includes) return character just before the 'G' in the following 'GRUP', which represents the next equipment type.

The Type starts with 'GRUP' and a space ' '. This is followed by a size. This size includes all characters between the beginning of one 'GRUP' and up to and including line 42, e.g. GRUP 906, the size being 906.

The 'GRUP' line is then followed by ten (10) lines of text, each one ending in a return character. These lines form the global data that can be edited in 'Type Edit'.

The first Equipment record follows the ten (10) lines. It starts on line 12 and runs to (and includes) line 42.

(*Note*: If there were more Equipment records in this type then the next one would start on line 42, instead of the next 'GRUP' as illustrated here.)

The Equipment record starts with 'EQU' and a space ' '. It is then followed by a size. This size includes all characters starting at (and including) the letter 'E' in 'EQU' and running to (and including) line 42, e.g. 'EQU 872'.

The rest of the equipment record follows similar rules to the people record. There are 22 lines of text, each ending in a return and then 7 'LIST' items. Each 'LIST' item like the ones in the people records has a size that is the number of characters contained in the list. This size does not include the 'LIST ' data itself. Each 'LIST' is also separated by a return character.

The 'EQU' size is inclusive of all items in the Equipment record.

The 'GRUP' size is inclusive of all items in the Equipment Type, including all 'EQU' records and the lines of global data.

File Format: MacCheckout.Agree

1.AGMT 138	<i>Record Start</i>
2.0000000	<i>ID number</i>
3.Robertson	<i>Last Name</i>
4.Maxwell	<i>First Name</i>
5.555-111-1111	<i>Phone Number</i>
6.2892720600	<i>Equipment Out Time in Seconds</i>
7.2892825000	<i>Equipment In Time in Seconds</i>
8.Overnight Access	<i>Does person have Overnight Access</i>
9.NORM	<i>Is the Agreement a 'Norm'al request</i>
10.	<i>Invoice Number</i>
11.	<i>Not Used</i>
12.	<i>Not Used</i>
13.LIST 29	<i>List of Equipment Checked out</i>
P-01-CF	
P-22-CF,"SINAR BRON"	
14.	
15.LIST 0	<i>Notes</i>
16.	
17.AGMT 162	<i>Next Record</i>
etc.	

This is the file structure for an 'Agreement Form'. The record runs from (and includes) line 1 to (and includes) line 16. The next record starts on line 17. The same rules apply here as in the other file formats. The 'AGMT' size includes the number of characters in the complete record. The 'LIST' size only contains the number of characters actually in the 'LIST'. Remember the return characters.

File Format: MacCheckout.Fines

1.FINE 165	<i>Start Record</i>
2.0000000	<i>ID Number</i>
3.Robertson	<i>Last Name</i>
4.Maxwell	<i>First Name</i>
5.555-1111	<i>Phone Number</i>
6.Employee	<i>Status</i>
7.2892424900	<i>Time of Fine in Seconds</i>
8.2892412800	<i>Date of Fine in Seconds</i>
9.Yes	<i>Is Fine because of Abuse</i>
10.	<i>Checkout Date in Seconds</i>
11.	<i>Return Date in Seconds</i>
12.	<i>Actual Return Date in Seconds</i>
13.(1:0:0)	<i>Overdue Time</i>
14.MC	<i>Fine Location</i>
15.280 S. Columbus Dr.	<i>Fine Address</i>
16.\$10.00	<i>Fine Total</i>
17.LIST 7	<i>List of Equipment</i>
P-1-TV	
18.LIST 7	<i>List of Fine Amounts Per Day</i>
\$10.00	
19.LIST 7	<i>List of Fine Sub-Totals</i>
\$10.00	
20.	
21.FINE 183	<i>Next Record</i>
etc.	

This is the file structure for a 'Fine' card. The record runs from (and includes) line 1 to (and includes) line 20. The next record starts on line 21. The same rules apply here as in the other file formats. The 'FINE' size includes the number of characters in the complete record. The 'LIST' size only contains the number of characters actually in the 'LIST'. Remember the return characters.

File Formats: MacCheckout.Schedule

1.GRUP 294	CLASS	?	Line 1 = <i>Record Start</i>
2.COLOR CLASS	?	?	Line 2 = <i>Schedule Name</i>
3.LIST 239	?	?	Line 3 = <i>List of 119 schedule</i>
?	?	?	<i>time slots</i>
?	?	?	Line 4 = <i>List of Equipment</i>
?	CLASS	?	<i>Assigned to the Schedule</i>
?	CLASS	?	Line 5 = <i>Next Record</i>
?	CLASS	?	
?	CLASS	?	
?	CLASS	?	
?	CLASS	?	
?	CLASS	?	
?	?	?	
CLASS	?	?	
CLASS	?	?	
CLASS	?	?	
CLASS	?	?	
?	?	?	
?	?	?	
?	?	?	
?	?	?	
?	?	?	
?	?	?	
?	?	?	
?	?	?	
?	?	?	
?	?	4.LIST 15	
?	?	COLOR DARKROOM	
?	?	5.	
?	?	6.GRUP 169	
?	?	etc.	
MAINT	?		
MAINT	?		
?	?		
?	?		
?	?		
?	?		
?	?		
?	?		
?	?		
?	?		
CLASS	?		
CLASS	?		
CLASS	?		
CLASS	?		
CLASS	?		
CLASS	?		
CLASS	?		
?	?		
?	?		
CLASS	?		
CLASS	?		
CLASS	?		

(Note: All lines that have a '?' on them are usually blank. The '?' was entered just to allow you to see the file structure better.)

This is the file structure for a 'Schedule' list. The record runs from (and includes) line 1 to (and includes) line 5. The next record starts on line 6. The same rules apply here as in the other file formats. The 'GRUP' size includes the number of characters in the complete record. The 'LIST' size only contains the number of characters actually in the 'LIST'. Remember the return characters.

*(Note: The first list always has 119 entries, even if they are all blank. These entries match up with the 17 time slots for each of the 7 days, 7 * 17 = 119. Each entry for a time slot is noted in this area.)*

File Format: MacCheckout.UsageLogs

1.USGE 243	<i>Record Start</i>
2.C-41	<i>Usage Chemical</i>
3.3	<i>Usage Code, 3 = Use by Date and Amount</i>
4.28.8 FT	<i>Chemistry Limit</i>
5.LIST 4	<i>List of Chemistry Parts</i>
ALL	
6.LIST 3	<i>List of Mix Limits</i>
28	
7.LIST 11	<i>List of Mix Dates</i>
2891926800	
8.LIST 24	<i>List of People ID Numbers who used</i>
0000001	<i>the Chemistry</i>
0000002	
0000003	
9.LIST 17	<i>List of Peoples Last Names</i>
Flor	
Collopy	
Lee	
10.LIST 26	<i>List of Peoples First Names</i>
Matthew	
Dawn "BE-BE"	
Jin	
11.LIST 49	<i>List of Film Processed</i>
120 * 2	
135 MM - 36 exp * 10	
135 MM - 36 exp * 5	
12.LIST 15	<i>List of Film Sq. Footage Processed</i>
1.08	
6.00	
3.00	
13.	
14.USGE 466	<i>Next Record</i>
etc.	

This is the file structure for an 'Usage Log'. The record runs from (and includes) line 1 to (and includes) line 13. The next record starts on line 14. The same rules apply here as in the other file formats. The 'USGE' size includes the number of characters in the complete record. The 'LIST' size only contains the number of characters actually in the 'LIST'. Remember the return characters.

File Format: Resale->???,????

1.GRUP 157	<i>Record Start</i>
2.0000000	<i>ID Number</i>
3.Robertson	<i>Last Name</i>
4.Maxwell	<i>First Name</i>
5.\$10.00	<i>Sale Total</i>
6.4/30/03	<i>Sale Date</i>
7.LIST 7	<i>List of Items Purchased</i>
ADChem	
8.LIST 2	<i>List of Number of Items Purchased</i>
1	
9.LIST 7	<i>List of Items Purchased Unit Cost</i>
\$10.00	
10.LIST 3	<i>List of Flags denoting Items Tax Status</i>
No	
11.LIST 7	<i>List of Sale Sub-Totals</i>
\$10.00	
12.LIST 6	<i>List of Sale Tax Sub-Totals</i>
\$0.00	
13.LIST 18	<i>List of Account Numbers</i>
0-###-00000-#####	
14.	
15.GRUP 160	<i>Next Record</i>
etc.	

This is the file structure for a 'Resale' record. The record runs from (and includes) line 1 to (and includes) line 14. The next record starts on line 15. The same rules apply here as in the other file formats. The 'GRUP' size includes the number of characters in the complete record. The 'LIST' size only contains the number of characters actually in the 'LIST'. Remember the return characters.

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