

## Notes for Users of Lertap 5.10.99.4

Last updated on 7 December 2020

Thank you for preparing to take this version of Lertap 5 for a test drive. This is the “ambidextrous” version, one that’s been made for use on either a Windows computer or on an Apple Mac<sup>1</sup>.

This document provides comments on how to get up and running, and has a list of all the files you should have on your computer once the Lertap510994.zip folder has been downloaded, saved to a new folder, and unzipped. (Instructions come **below**.)

In a moment or two you’ll read about how to get Lertap 5 started. You should know that, once Lertap 5 is installed and working, you’ll find that it will have a restriction: it will process just the first 250 data records found in the Data worksheet. If there are more data records, they will be ignored. This is how the default version of Lertap 5 works, a version referred to as the “Mini version”.

It is certainly possible to remove the restriction of 250 data records; please refer to [this document](#), and note: the document appears to limit itself to Windows versions of Lertap 5 – but its instructions also apply to the Mac version.

### Installation

There is not a real installer program for this version of Lertap 5. In the past, installer files have been made for Windows and Mac versions, but for the moment we’re trialing something new: no installer, just a plain old, everyday “zip” folder with files.

There is an advantage to not using an installer: setting up Lertap 5 on a computer is easier (as long as users are familiar with zip folders). Time will tell how well this idea is accepted, and feedback is most welcome (to [lertap5@gmail.com](mailto:lertap5@gmail.com), and herewith thanks in advance).

Here are the steps to follow in order to get Lertap 5 running on a Macintosh computer.

1. Check to make sure you’ve got the latest version of Excel. This is particularly important on a Mac as it’s only in very recent times that the version of Excel 2016 for the Mac has come to be *almost* on feature- and capability-par with the corresponding Windows version<sup>2</sup>.
2. **Download the Lertap510994.zip** folder with the suite of Lertap files. It may be [found here](#). The operating system on a Mac, “macOS”, will place downloaded material in the computer’s “Downloads” folder.

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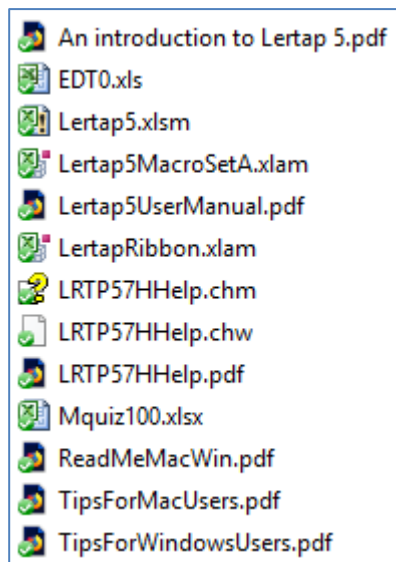
<sup>1</sup> Windows users are better served by using either the zip or exe setup files [mentioned here](#).

<sup>2</sup> With Mac Excel 2016, use the Help menu to check for updates.

3. Create a new folder on your computer where you will set up Lertap 5, perhaps under your “Documents” folder. Copy the Lertap510994.zip file to the new folder, and then unzip it. This is often called “uncompressing”, or “extracting”. It’s a simple process on a Mac, and with Windows too: double click on the file (Lertap510994.zip) and, all being well, the suite of Lertap files will be extracted from the zip and you’ll see them<sup>3</sup>. If help is needed, search “how to unzip on a Mac” (or with Windows) on the internet – here’s [an example](#) of what you might find.

From here on we will, for convenience, refer to the folder where you’ve unzipped Lertap as the “Lertap folder”. Of course you may well have given it another name, we know.

4. Try not to get too eager to get things running. It bodes well to look at the names and types of the files in the Lertap folder. You should see something similar (*not necessarily identical*) to this listing:



5. Read the ReadMeMacWin file – in fact, it’s what you’re reading right now – continue reading.
6. Open and browse the “TipsForMacUsers” or the “TipsForWindowsUsers” so that you at least have an idea of its topics. Most of the topics are rather important; one or two of them may “save your bacon” when problems or glitches arise.
7. Have a very good study of: “An introduction to Lertap 5”, one of the files in the Lertap folder.

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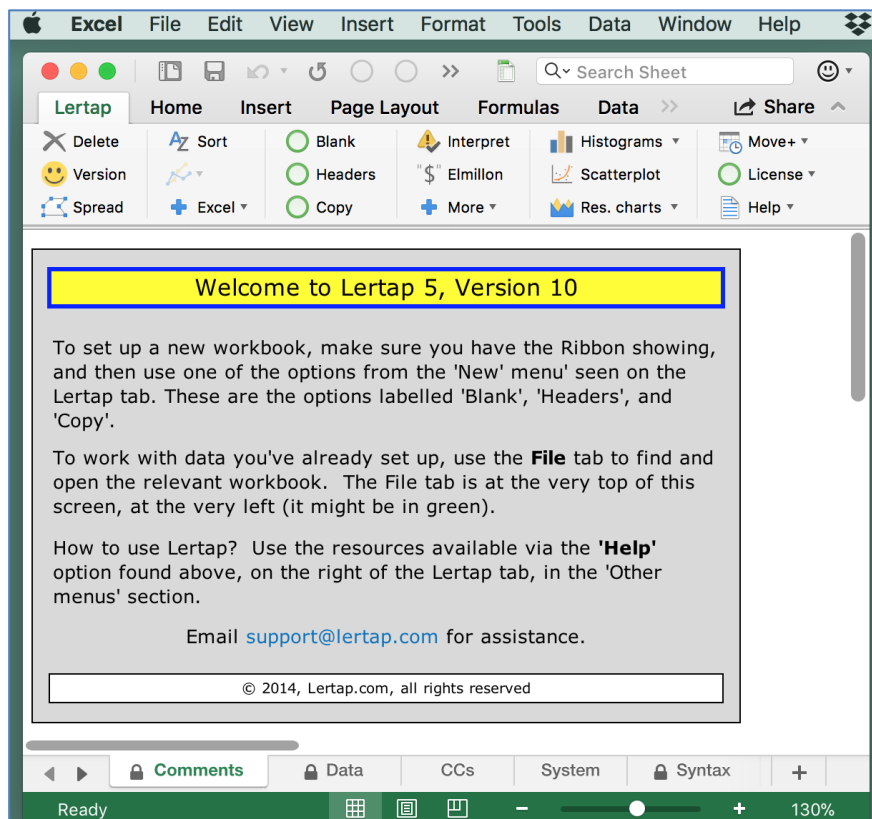
<sup>3</sup> You can also try using the right mouse button to click on Lertap510994.zip to see if there may be an option to “extract all files”; this is common on Windows computers.

8. Relax. Put your phone on silent mode. Make sure the kids are in bed. Put a “do not disturb” sign on the door. Play some soft piano music. Be confident! Smile.
9. Get started by reading what follows.

## Getting started

Open Excel. Use its File menu to navigate to the Lertap folder, and then open the Lertap5.xlsm file found within the folder.

What you want to see is shown in the screen snapshot below<sup>4</sup>. Note the tabs that are showing, and their names: Lertap, Home, Insert, ..., Data. If the Lertap tab does not show, close Lertap5.xlsm, and then open it again. If the Lertap tab still does not show, it probably means that “macros” are not enabled in Excel – this is not unusual at all. Refer to the appropriate “TipsForUsers” document (Mac or Windows) for instructions on how to enable macros. Then, once you’ve got the Lertap tab to show, return to this spot and continue reading.



At this point, if you’d like to get right into Lertap without fiddling around with more reading, you certainly can. A sample workbook, “Mquiz100.xlsx”, has been included in the suite of Lertap files. You can use it. Here’s what you would do:

<sup>4</sup> The Lertap tab is a bit different under Windows. See [this page](#).

1. Start Lertap (open Excel, then open the Lertap5.xlsm file).
2. Open the Mquiz100.xlsx file. It has been adapted from a well-known Lertap dataset called “MathsQuiz”. More information about MathsQuiz [is here](#); Mquiz100 uses just the initial 100 records from MathsQuiz.
3. Select the “Interpret” option from the Lertap tab, followed by the “Elmillon” option<sup>5</sup>.
4. Refer to Chapter 2 of [the manual](#) for an explanation of the output, or use the blue “[little h](#)” helper that appears at the right of the first or second row of most Lertap worksheet reports (a bit hard to see, but well worth looking for).

### Known limitations when running on a Mac

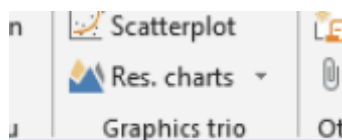
When opening the Lertap5.xlsm file for the first time, the [Lertap tab](#) *may not show*. Close Lertap5.xlsm and then open it again. If the Lertap tab still does not show, then read about how to enable macros in the “TipsForMacUsers” document.

Not all of the options under the [Macs Menu](#) will work as might be expected. For example, the EIRT add-in for Excel does *not* work on a Mac, and, consequently, the [EIRT macro](#) will *not* work even though it appears to want to. The popular [Omega1 macro](#) *will* work on the Mac, but does not go as far as it does under Windows – Mac users have to do a bit more work to get their omega reliability results from R’s “psych” package (see [this document](#)). The [Rasch IRT](#) routine in the R TAM package can also be made to work on a Mac. The [RaschAnalysis1](#) macro *will* work.

### Known limitations when running with Windows

When opening the Lertap5.xlsm file for the first time, the [Lertap tab](#) *may not show*. Close Lertap5.xlsm and then open it again. If the Lertap tab still does not show, then read about how to enable macros in the “TipsForWindowsUsers” document.

It *may take close to forever to get* [response charts](#) if a default printer has not been set. These charts result after taking the “Res. Charts” option from the ribbon:



In Windows 10, printers are defined as explained in [this topic](#).

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<sup>5</sup> When “[Production mode](#)” is in use, “[Interpret](#)” is the only option required – when it finishes “[Elmillon](#)” is automatically activated.

## Time Trials

Here are some typical times found when running Lertap on a late 2013 MacBook Pro, a computer having a fourth-generation i5 Intel processor. No doubt times would be better with a newer computer – the i5 processor is now into its eighth generation – we’d guess we could probably halve these times using a new i5, even better with a new i7.

The times reported below were recorded when running Lertap in “[production mode](#)” on the Mac. All of the tests used in the trials used multiple-choice items.

With three university classes

class 1 / 30 items / 127 students / processed in 29 seconds

class 2 / 34 items / 132 students / processed in 41 seconds

class 3 / 100 items / 424 students / processed in 1 minute, 17 seconds

From an international certification centre

60 items / 1,769 students / processed in 1 minute, 7 seconds

From a national assessment test of language ability

50 items / 5,504 students / processed in 1 minute, 46 seconds

From the same national assessment test, but now scoring three [subtests](#) of 10 items, 40 items, and 50 items / just under 4 minutes total

Excel 2016 [running on a Windows computer](#) blows these times to bits; nonetheless, it is now clearly possible to process sizable datasets on a Mac with Excel 2016, even on my aging MacBook Pro.

Note: when running with large datasets, having many student records, Excel may report that it “is not responding”. Windows Excel will continue running without comment; Mac Excel may ask what you might prefer to do, wait for it to “recover”, or cancel. The best option is to click the wait button, and then ... ah ... wait.

## Licenses

A license removes the 250-record restriction mentioned earlier.

Visit [the store](#) to read about licenses.

Additional licenses may of course be obtained at any time, and any license may be transferred to another computer for a modest fee, providing [these steps](#) are followed.

## Lertap program files

Of all the files in the Lertap folder, only three are required to actually run Lertap. They are Lertap5.xlsm, Lertap5MacroSetA.xlam, and LertapRibbon.xlam.

Lertap5.xlsm is the file to open; it automatically loads the other two files. Read more in one of the “TipsForUsers” files.

## Complete files list

These are the files in the Lertap folder, as of 2 October 2019<sup>6</sup>:

### **An introduction to Lertap 5.pdf**

A simple but fairly complete introduction. *Highly recommended.*

### **EDT0.xls**

A special template workbook used by the [Exam Developer macro](#). It may be opened just like any other workbook, but it may not make sense if you're not familiar with Exam Developer.

### **Lertap5.xlsm**

This is the main Lertap file, the one to open whenever you want to run Lertap. It has macros, lots of them, so you'll have to have macros enabled in Excel in order to get the Lertap toolbar to show. The "TipsForUsers" documents mention how to enable macros.

When this file opens, it automatically calls the file with the set of additional macros, Lertap5MacroSetA.xlam, and then follows this by a call to Lertap-Ribbon.xlam<sup>7</sup>.

### **Lertap5MacroSetA.xlam**

A file with a set of numerous special macros which extend the functionality of Lertap. Some of them have been contributed by users. When Lertap is running, access to these macros is via the [Macs drop-down menu](#).

### **LertapRibbon.xlam**

A file with a set of macros responsible for placing the Lertap 5 tab on the Excel Ribbon.

### **Lertap5UserManual.pdf**

This is the original manual, created at the turn of the century. It's still a top-flight reference, a highly recommended read for getting started (see [Chapter 2](#)), and for interpreting the statistics found in Lertap's [main reports](#): Stats1f, Stats1b, and Stats1ul.

Individual chapters from the manual are available [here](#). These chapters are often more recent than the ones in the original manual.

### **LRTP57Hhelp.chm**

This is a "compiled Microsoft help file". It will be used when running on a Windows computer, but files like this one, with an extension of chm, are not of much use at all on a Mac. Please read the "TipsForMacUsers.pdf" document for more information. An online version, probably more current, [is here](#).

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<sup>6</sup> The files may have changed a bit after this document was created.

<sup>7</sup> Mac users may have to "grant access" to these files the first time Lertap is used.

**L RTP57Hhelp.epub**

This file doesn't look too bad with the iBooks app on an iPad. It's the same as Lertap57Hhelp.pdf and Lertap57Hhelp.chm, but in the "e-pub" format. An online version, possibly more up to date, [is here](#).

**L RTP57Hhelp.pdf**

Features a presentation of the many many options which have been added since the manual was printed in 2001. It's the same as Lrtp57Hhelp.chm but in pdf format. An online version, possibly more up to date, [is here](#).

**Mquiz100.xlsx**

This is a sample of 100 cases taken from a high school maths test. Refer to [this page](#) for more information. One of the questions in the quiz, I11, has been incorrectly scored – an error was made in the \*key line of the workbook's CCs worksheet. As a result, the test's reliability (coefficient alpha) appeared to be considerably lower than it would have been had the error not been made.

Try this out for yourself: open the workbook and take the standard Lertap options: "Interpret" and then "Elmillon". The reliability figure appears towards the bottom of the Stats1f report, and also in the Stats1b report, just above the scatterplot of item difficulty by item discrimination. Note how I11's "blip" appears at the bottom of the scatterplot, sort of like a sore thumb.

Try correcting the error in the \*key line, and then use the Interpret and Elmillon options again to see how coefficient alpha improves.

**ReadMeMacWin.pdf**

The file you're reading now.

**TipsForMacUsers.pdf, and TipsForWindowsUsers.pdf**

There's a Tips document for Windows users, and another for Mac users. Each has some very important information, and therefore is *a must read*.

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Okay, there you have it. Drop a note if (when) you have problems, comments, or questions: [lertap5@gmail.com](mailto:lertap5@gmail.com).

Cheers, *Lertap5 Support Desk*

Fremantle, Western Australia