PHStat2 Version 3.0 Readme.

PHStat2 is Windows software that assists you in learning the concepts of statistics while using Microsoft Excel. PHStat2 allows you to perform many common types of statistical analyses working with and using the familiar Microsoft Excel interface.

The rest of this document is organized into sections that will assist you in setting up and using PHStat2.

Note: In this document, the symbol ➔ means "on the next submenu, select."

Table of Contents

1 PHStat2 Technical Requirements

There are separate requirements for using PHStat2 and running the PHStat2 setup program. The requirements for running the setup program are more exclusive. If you plan to setup PHStat2, make sure to review all of the requirements that follow.

Requirements for using PHStat2:

Windows XP, Windows Vista, or Windows 7.

Microsoft Excel 2003, Excel 2007 or Excel 2010 (32-bit version), with the latest Microsoft-supplied patches and service packs applied. PHStat2 will not work properly with unpatched versions of Excel or the 64-bit version of Excel 2010. (Visit **office.microsoft.com/officeupdate** for latest Excel updates.) *PHStat2 no longer supports Excel versions earlier than Excel 2003. Users of earlier Excel versions will be able to install PHStat2 but will discover that the new procedures discussed in Section 7 will not function properly.*

For Excel 2003, Microsoft Office macro security level set to **Medium** (see topic 2a in "Configuring Excel 2003 Security for PHStat2" for complete details). For Excel 2007 or Excel 2010, Trust Center Macro Settings set to **Disable all macros with notification** (see topic 2b "Configuring Excel 2007/2010 Security for PHStat2" for complete details).

Internet access for downloading Microsoft Excel updates and PHStat2 updates (visit **www.pearsonhighered.com/phstat)** as they become available.

Requirements for running the PHStat2 setup program:

Approximately 12 MB hard disk free space while running the setup program and 3 MB hard disk space after program setup.

Windows user account with administrator privileges. Student or faculty accounts used to login onto networked computers in academic settings typically do **not** have this privilege. If you have such an account, ask your network or lab technician for assistance.

2a Configuring Excel 2003 Security for PHStat2

The Microsoft Office macro security level must be set to **Medium** in order to allow PHStat2 to properly function. Open Microsoft Excel and select **Tools ➔ Macro ➔ Security**. In the **Security Level** tab of the Security dialog box that appears, click the **Medium** option and then click **OK**.

Setting the security level in this dialog box, affects all Microsoft Office programs. When you are finished using PHStat2, you can set the security level to **High**, for greatest security. (If you set the level to High, remember to reset the level to Medium before you next open and use PHStat2.).

If you cannot see the Macro choice on the Tools menu, it may be hidden from view due to the way that Microsoft Office is currently displaying menu choices. To double-check this, open Microsoft Excel and select **Tools ➔ Customize**. In the Customize dialog box, clear (uncheck) the **Menus show recently used commands first** check box if it is checked and click **Close**. Clearing this check box will cause every Microsoft Office program to show every choice on every menu. (You can reverse this setting at any time.) Clearing this check box will also be helpful when using PHStat2 as you will be always able to see every choice on the PHStat menu that appears inside Excel.

2b Configuring Excel 2007/Excel 2010 Security for PHStat2

You must change the Trust Center settings to allow PHStat2 to properly function. Follow these steps:

1. In Excel 2007, click the **Office Button** and then click **Excel Options** (at bottom of the Office Button menu window). In Excel 2010, click **File ➔ Options.**

In the Excel Options dialog box:

2. Click **Trust Center** in the left pane and then click **Trust Center Settings** in the right pane.

In the Trust Center dialog box:

3. Click **Add-ins** in the next left pane, and in the Add-ins right pane clear all of the checkboxes.
4. Click **Macro Settings** in the left pane and in the Macro Settings right pane click **Disable all macros with notification**.
5. Click **OK** to close the Trust Center dialog box.

Back in the Excel Options dialog box:

6. Click **OK** to finish

On some systems with stringent security settings, you may need to modify step 5. For such systems, in step 5, click **Trusted Locations** in the left pane and then, in the Trusted Locations right pane, click **Add new location** to add the folder path to the PHStat2 add-in (typically C:\Program Files\PHStat2) before you click **OK**.

3 Setting up PHStat2

To use PHStat2, you first need to run the PHStat2 setup program to add PHStat2 to your system. Before using the setup program, make sure you have reviewed the details of the previous two sections and have verified that your copy of Microsoft Excel is properly configured and updated and that your system meets all technical requirements listed in section 1.

Having reviewing the rest of this readme file, download the PHStat2 setup program and save the file to the folder of your choice. The PHStat2 setup program installs the PHStat2 files to your system and adds entries in the Windows registry file for your system. The setup program also adds Desktop icons and a Start Menu program group for PHStat2.

Run the setup program only after first logging on to Windows using a user account that include administrator privileges. (Running the setup program with a Windows user account that does not include these privileges will prevent the setup program from properly installing PHStat2.)

If your system contains Windows Vista, Windows 7, or certain third-party security programs, you may see messages asking you to "permit" or "allow" specific system operations as the setup program executes. If you do not give the setup program the necessary permissions, PHStat2 will *not* be properly installed on your computer.

After the setup completes, check the installation by opening PHStat2. A proper installation will cause Excel to display a PHStat menu in the Add-Ins tab (Excel 2007 or Excel 2010) or the menu bar (Excel 2003). If you have skipped checking for and applying necessary Excel updates, or if some of the updates were unable to be applied, you may see a "Compile Error" message that talks about a "hidden module" when you first attempt to use PHStat2. If this occurs, repeat the process to check for and update Excel.

4 Using PHStat2

You use PHStat2 by double-clicking the Desktop PHStat2 icon or selecting PHStat2 from the Start menu PHStat2 program group. If you prefer, you can use the Excel (File) Open dialog box to open the PHStat2.xla file directly. Once properly loaded, PHStat2 will add a new PHStat menu in the Add-Ins tab of Excel 2007 or Excel 2010 or the Excel menu bar in Excel 2003.

When you use the correct Excel security settings (see Section 2a or 2b), you will see a macro virus warning dialog box as you attempt to open PHStat2. Should this dialog box appear, click the **Enable Macros** button to allow PHStat2 (virus-free, as shipped) to be opened.

5 Updating PHStat2

From time to time, enhanced versions of PHStat2 that add new capabilities or clarify user issues may be published on the Pearson Education web site. If you plan to use PHStat2, you should regularly check the PHStat Web site at **www.pearsonhighered.com/phstat** for news and updates related to this version (3.0). You should also regularly check the Microsoft Office Web site for Excel updates.

6 Troubleshooting PHStat2.

"Compile error in hidden module" message. If you get an error message that mentions a compile error in a hidden module or workbook when you start PHStat2, you copy of Excel may not be properly updated. Check for updates for your copy of Microsoft Excel at **office.microsoft.com/officeupdate**.

Error message during installation using Windows 7 x64 (64-bit) software. If, during installation, you get a dialog box message that notes that some components failed to self-register, click the **Continue** button in the dialog box to complete the installation. You may have to update your Windows 7 and reinstall PHStat2 at a later time.

"Unexpected error" message when running a PHStat2 procedure. First verify that PHStat2 was properly set up of your system. Then review the PHStat2 help system topics for the procedure as well as the topic "Preparing Data for Analysis" to verify that any data necessary for the procedure has been properly organized in your worksheet. Most unexpected errors arise from incorrectly prepared input data. If this error only occurs with several procedures, verify that you have the Analysis ToolPak and the Analysis ToolPak – VBA add-ins properly loaded (see Section 2).

Unable to complete the PHStat2 setup process. Review the section "Technical requirements for Phstat2." Most problems of this type are caused by user accounts that do not permission to setup up application software in a networked environment.

PHStat menu fails to open or fails to appear. Your Excel macro security setting is incorrect. Change setting to Medium option as explained in Section 3a or 3b. Less likely, this problem can also be caused by certain settings in older anti-virus programs that have not been properly updated

If you need further assistance, first read the help topic for the PHStat2 procedure by clicking **Help** in the procedure's dialog box. Then visit the PHStat2 website **www.pearsonhighered.com/phstat** to contact Pearson Education technical support for further assistance.

7 What's New in PHStat2?

PHStat2 is continually being enhanced. This is PHStat2 version 3.03.

Changes in version 3.03 since version 3.0

Corrected minor issues in the Two-way ANOVA with replication and Levene Test procedures.

Corrected formatting of the Variance Inflationary Factor option of Multiple Regression.

Corrected issue with Paired t Test Procedure when Upper-Tail Test option is selected.

Changes in version 3.0 since version 2.8.1

Elimination of the use of the Excel Data Analysis ToolPak add-ins.

Scatter Plot Procedure added.

Division of the Two-Sample Test submenu into Unsummarized Data and Summarized Data submenus.

Paired t Test Procedure added.

Pooled-Variance t Test Procedure for unsummarized data added

Separate-Variance t Test Procedure for unsummarized data added.

Two-Way ANOVA with replication Procedure added. (This procedure includes a Cell Means Plot output option.)

User-specified level of significance added to One-Way ANOVA Procedure.

Frequency Distribution, Histogram & Polygons, One-Way ANOVA, Two-Way ANOVA, Simple Linear Regression, Multiple Regression Procedures revised to create live worksheets.

Worksheet formatting enhanced and minor errors corrected.

(Version 3.0 breaks compatibility with Excel versions earlier than Excel 2003.)

Check the PHStat website **www.pearsonhighered.com/phstat** for the latest updates and enhancements to PHStat2 or to seek technical support.
This document is current as of April 2011 (Version 3.03).
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