TympView
User Manual

Title: TympView User Manual

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Warranty Disclaimer
The TympView software is provided by Welch Allyn for use in conjunction with the MicroTymp® 4 tympanometer. Welch Allyn provides no warranty (implied or otherwise) regarding this software and will not be liable for any aspect or consequences of its copying or use on a 3rd-party computer. By downloading and/or running the application, the user accepts these conditions.

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PREFACE

This user manual provides information about the TympView software program. This manual is intended for technically qualified personnel.

Please note: This User Manual is not intended as a training manual. The reader should consult standard audiology texts for the theory and application of the tests stored by this program.

INTRODUCTION

Thank you for purchasing the Welch Allyn MicroTymp® 4 system. The TympView software is provided by Welch Allyn to allow the data stored on the MicroTymp 4 system to be transferred to a PC. If multiple tests have been stored in the MicroTymp 4 they can all be downloaded to a PC in a single operation.

Tympanometric and acoustic reflex tests saved in the memory of the MicroTymp 4 tympanometer may be transferred to a PC via a USB connection from the MicroTymp 4 cradle to a PC running the TympView software. In the TympView software, tympanograms and reflex traces may be displayed in greater detail than on the screen of the device. All the data and traces from both ears are presented on a single screen, allowing easy comparison. If required, a tympanogram classification result according to the Jerger scheme may be added. Tympanogram reports may be printed or saved in pdf format for importing into other programs.

SOFTWARE INSTALLATION

Before installing the software confirm that the computer meets the minimum requirements.

MINIMUM PC REQUIREMENTS

- CPU: 2.0 GHz, Intel dual or quad core processor or better
- RAM: 4 GB (or minimum required by OS)
- Storage: 64 GB or larger
- USB Ports: 1 minimum
- Display: 10" or larger
- Resolution: 1366 x 768 minimum
- Touch screen or mouse/trackball

SUPPORTED OPERATING SYSTEMS

- Microsoft Windows® 10 Pro
- Microsoft Windows® 7 Professional

SOFTWARE REQUIREMENTS

The following should be installed if they are not already present on the PC.

- Microsoft .NET Framework version 4.6

INSTALLATION

To install this application, the user must either be an Administrator or know the Administrator password.

1. Insert the MicroTymp 4 USB into an available USB port. If auto-run is disabled, browse the USB drive and double click on the *TympViewSetup.bat* file.
2. The Setup Dialog will be displayed.
3. Select the "Start" button to install the software.
4. Follow any on-screen instructions to complete the installation.

RECOMMENDATIONS

The following recommendations will aid in the secure collection and storage of patient data. Please contact a local administrator for help and guidance.

- Disable the "suspend USB" power option to ensure proper communication between instrument and PC.
- Create backup of patients' data regularly
- Store backup of data in a safe manner.
- To avoid data from being misused, if stolen, the data must be encrypted.
- Ensure that an appropriate virus & spyware software is installed, updated, and effective.
- All users should have a unique login to the PC.

UNINSTALLING THE SOFTWARE

1. Open the Windows Settings (Control) Panel.
2. Select Apps (Programs) and Features.
3. Select TympView.
4. Select Uninstall.
5. Follow the onscreen instructions.

CONNECTING THE MICROTYMP 4 INSTRUMENT

The MicroTymp 4 is connected to the PC via a USB cable from the cradle.

The MicroTymp 4 unit must be placed in the cradle for data to be transferred. The cradle must be plugged into power and the device should be turned on. The transfer of data is initiated from the TympView program running on the PC.

OPERATING TYMPVIEW

The TympView program may be launched from the Start->All Programs->TympView folder. The TympView Main screen is presented with a title bar and menu at the top of the screen.
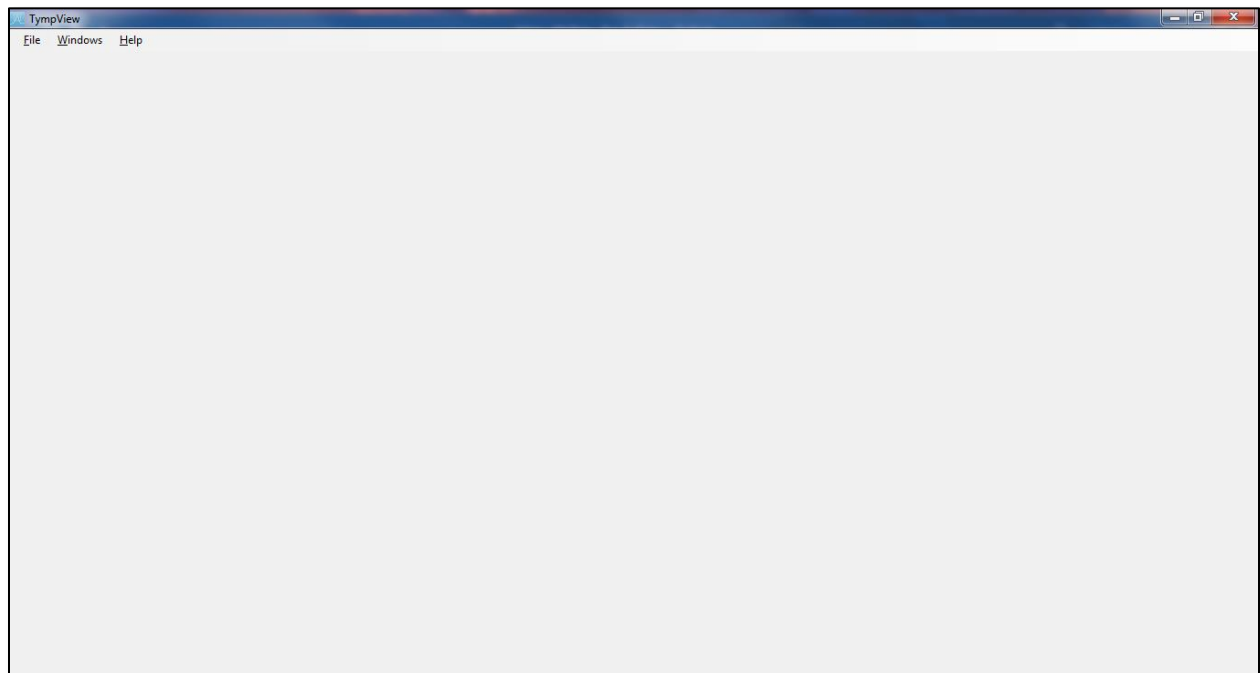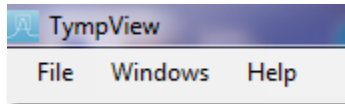
TITLE BAR

The title bar contains the standard Windows control icons that allows the window to be minimized (-) and the program to be exited (X). The program displays the main screen window maximized.

MAIN MENU

The Main Menu contains three options; File, Windows and Help.

The File option is where you download the test results from the device, review and print the results. The Windows option provides a means to select or close the results windows. The Help option displays the about dialog which indicates the software version.

File

When the File menu option is selected, a dropdown sub menu is presented.
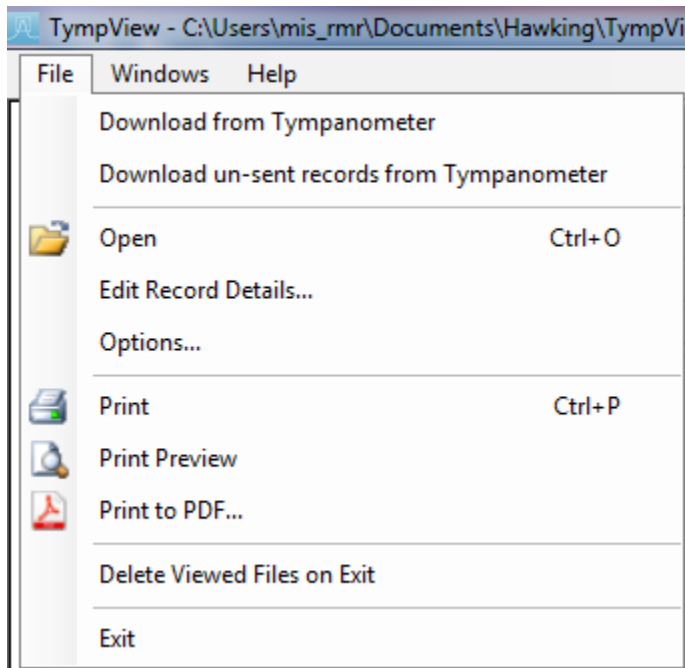
Download from Tympanometer

To view data in the TympView program the MicroTymp 4 test results must be downloaded from the device and then opened in the program. The Download from Tympanometer transfers all the data from the device to the PC. As the files are being transferred, a progress dialog is displayed indicating the record being transferred. Each patient test is stored as a separate file

on the PC and automatically placed in a directory as specified in the Options menu item. Files follow a specific naming convention: nnn_YYYYMMDD_HHMM.APX where nnn is either the initials entered when the test was saved in the device database, or 'xxx' (lower case) if none have been entered. YYYYMMDD is the date of the test (in the format year, month, date); HHMM is the time of the test. This naming convention ensures no two files are likely to have the same name. Once transferred, the Open menu item is used to load and view the files in TympView.

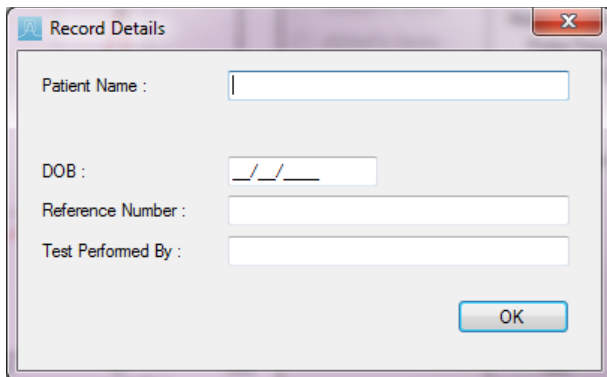**Download un-sent records from Tympanometer**

The Download un-sent from Tympanometer transfers only the data from the device that has not already been transferred to the PC. The process is the same as the Download from Tympanometer.

Open

When the Open option is selected, the File Open dialog is presented where you can browse and select data that has been transferred from the device.

Edit Record Details…

Opens a new dialog that provides entries for the patient name, date of birth, ID/reference number and tester. This information is not stored but appears on the printout of the test results.

Options…

Opens a new dialog that provides the specification for the location of the transferred data files. The files may be transferred to the user profile on the PC or the user may specify the specific location on the PC where the data will be transferred.
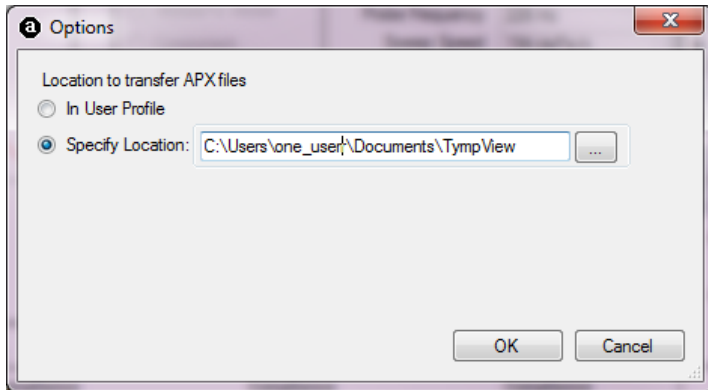
The specific location may be typed directly into the text box or the button at the end of the text box may be selected to browse the PC to select the directory.

Print

Opens the print dialog where you can select the printer and print the results.

Print Preview

Opens a new dialog that provides a preview of the record prior to printing. From the Print Preview dialog, you can view the page layout and print or close the dialog.

Print to PDF

Opens a new dialog that prompts you for the PDF filename and location and then outputs the PDF file.

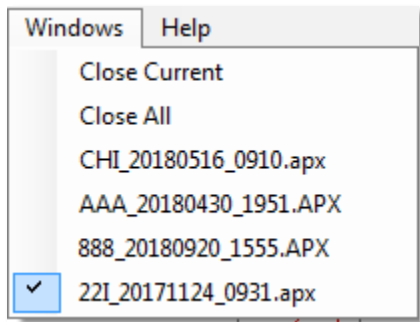**Delete Viewed Files on Exit**

When checked, all files viewed in TympView will be deleted on exit. When un-checked, viewed files will be retained on exit.

Exit

Closes the TympView program.

Windows

When the Windows menu option is selected, a dropdown sub menu is presented.

The Windows sub menu allows you to select or close the results from any opened file.

Close Current

Close Current will close the displayed results windows. The current window is indicated by a check mark in front of the file name in the file listing of the menu.

Close All

Close All will close all the listed results windows.

xxx_yyyymmdd_hhmm.apx

Each file that has been opened is listed in the sub menu. Selecting the file makes it the current window and displays the results. The currently selected results file is indicated by the check mark.

Help

The Help menu has a single item in the sub menu, About, which displays the TympView program version.

RESULTS WINDOW

When the transferred file is Opened, the results are displayed. Multiple files may be opened, and each file displayed in a separate window. The results window displays the data for the right ear (red) on the left side of the screen and the left ear data (blue) on the right side. The tympanogram and the measurements are displayed above the reflex data.
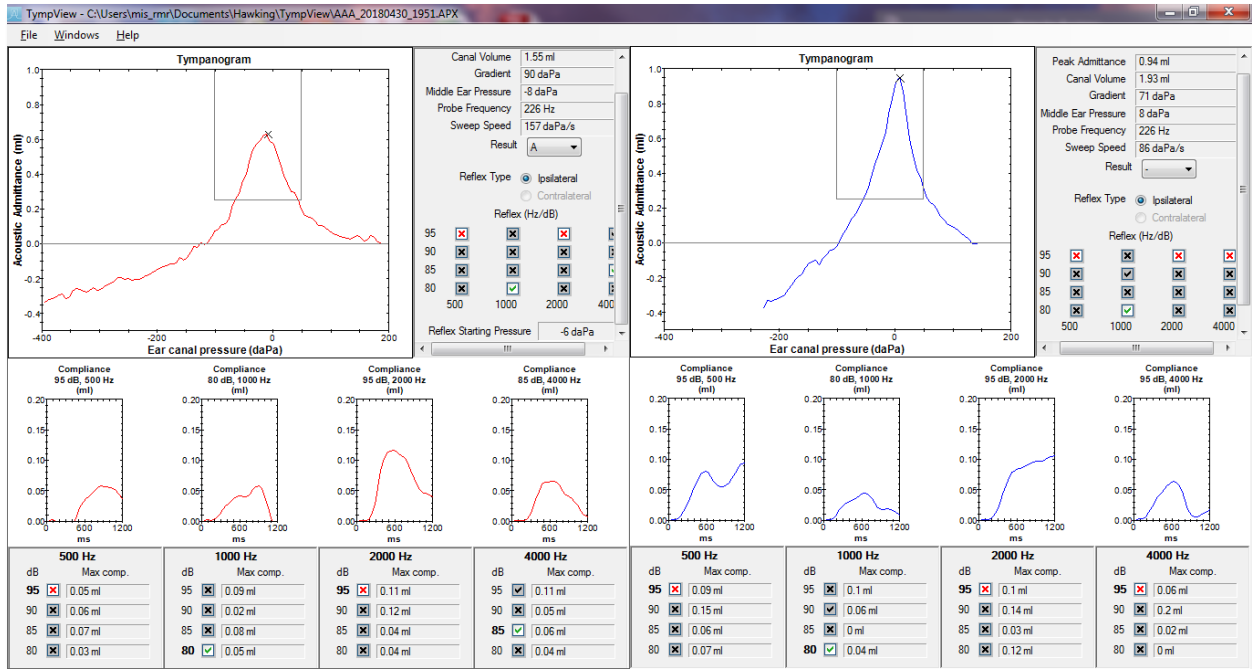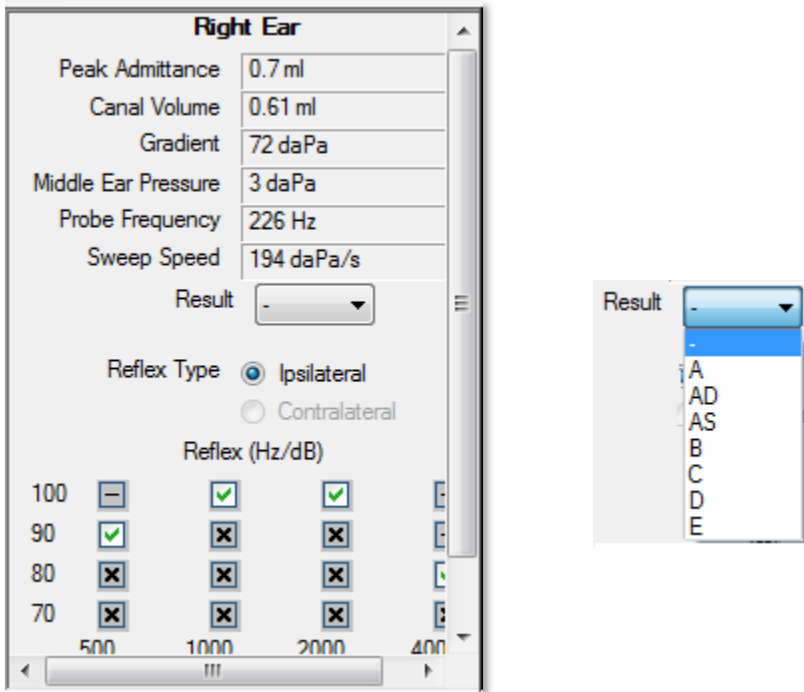
Tympanogram Results
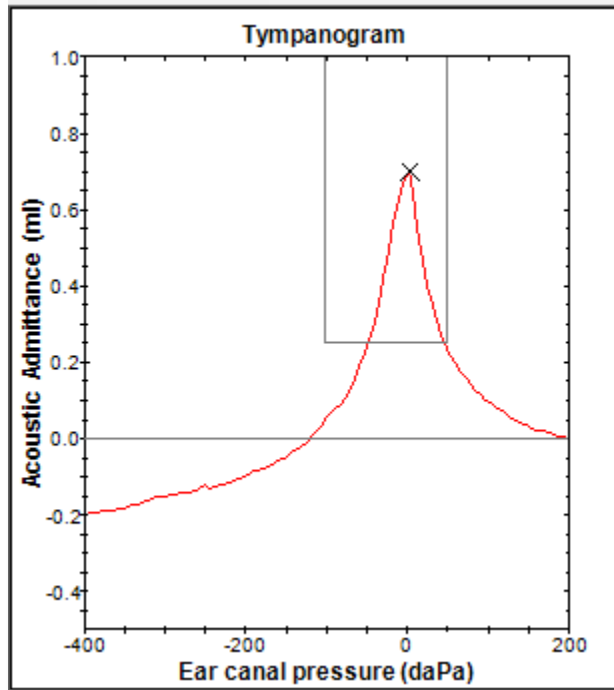
The tympanogram is plotted with the normative data box and the peak indicated by the X placed on the curve. Any adjustment of the peak is performed on the instrument and cannot be changed in TympView program.

Tympanogram Measures

The tympanogram peak measures are automatically calculated. The Gradient measure is the tympanometric width. The Result field has a dropdown menu where the Jerger tympanogram classification may be selected. This classification will be printed but not saved with the data. The summary table for the reflex results by frequency and intensity are presented below the measurements. Horizontal and vertical scrolls bars are used to display the data that is beyond the frame.

Reflex Results
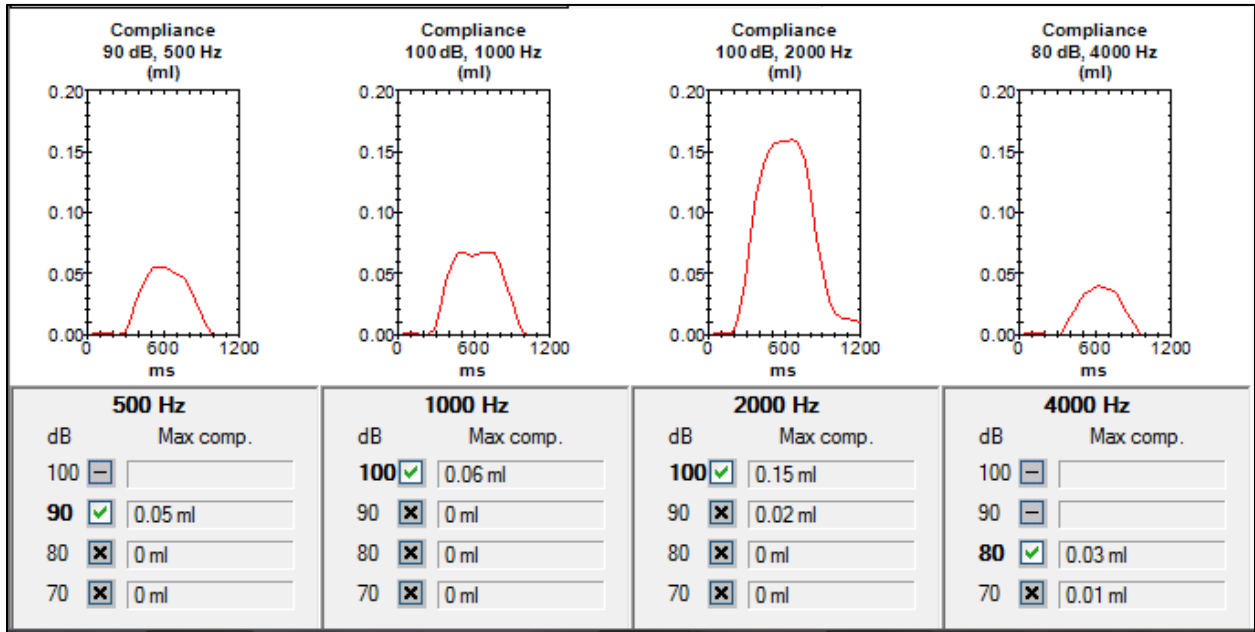
The reflex results display the reflex waveform with the level and frequency above the graph. The summary table below the graph indicates the maximum compliance at the different stimulus levels. The reflex results tables use the following to icons to indicate the result.

A reflex was detected, but this was not regarded as a valid reflex response by the device. It is possible for the operator to modify the result to show a valid reflex (green check) after review of the reflex trace. Click on the red X to make this change.

A reflex was detected, which was regarded as a valid reflex response by the instrument. It is possible for the operator to modify the result to indicate that no valid reflex had occurred (red X) following review of the reflex trace. Click on the green check to make this change.

No reflex test was performed at this level. Depending on the settings of the device this could occur because a valid reflex response occurred at a lower level.

No reflex response occurred.

A further response occurred at a higher level of reflex stimulus. If the Reflex Auto Stop option is set to "NO" in the instrument, reflex stimuli will be presented at all selected levels.

TROUBLESHOOTING

ERROR MESSAGES

Communication Errors

This message is displayed when the download from the Tympanometer is selected and the device is not turned on. Confirm that the device is turned on and the cradle is plugged into power.

This message is displayed when the download from the Tympanometer is selected and the program cannot communicate with the device. Confirm that the device is turned on, the cradle is plugged into power and that the connection to the computer with the USB cable is secure. The device should be powered on before starting the transfer. Try closing the program, power cycle on the device and then restart the program. You can continue without the connection, but the program will not be able transfer new data from the device. However, you will be able to analyze data that has been previously transferred.

Device Driver Installation Error

In most cases the installation of TympView and associated device drivers should be a straightforward process. If after the software installation, your device is not recognized you may need to reinstall the device drivers. The USB supplied with your device should contain a directory with the device drivers, open the folder 'USB drivers' and run the *setup.exe* program.