



DataView v4 User Guide

Software version 4

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DataView v4 User Guide

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This publication is supplied for use with the Dx-pH Measurement System™ only. Refer to the latest version of the Dx-pH Measurement System Instructions for Use in order to properly use the DataView v4 software with the Dx-pH Measurement System.

Respiratory Technology Corporation is responsible for the reliability and performance of the Dx-pH Measurement System™ only if the following conditions are met:

All repairs and modifications are carried out by Respiratory Technology Corporation or its assigned agents.

The equipment is used in accordance with the Instructions for Use.

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The Dx-pH Measurement System complies with the requirements of Health Canada Medical Devices Regulation SOR/98-282, in accordance with ISO 13485:2003 Medical Devices – Quality Management Systems – Requirements for Regulatory Purposes, under the Canadian Medical Devices Conformity Assessment System (CMDCAS).

CE 0843 – The device complies with the Medical Device Directive (MDD, 93/42/EEC). The four-digit number refers to the Notified Body who issued the certificate relative to this directive.



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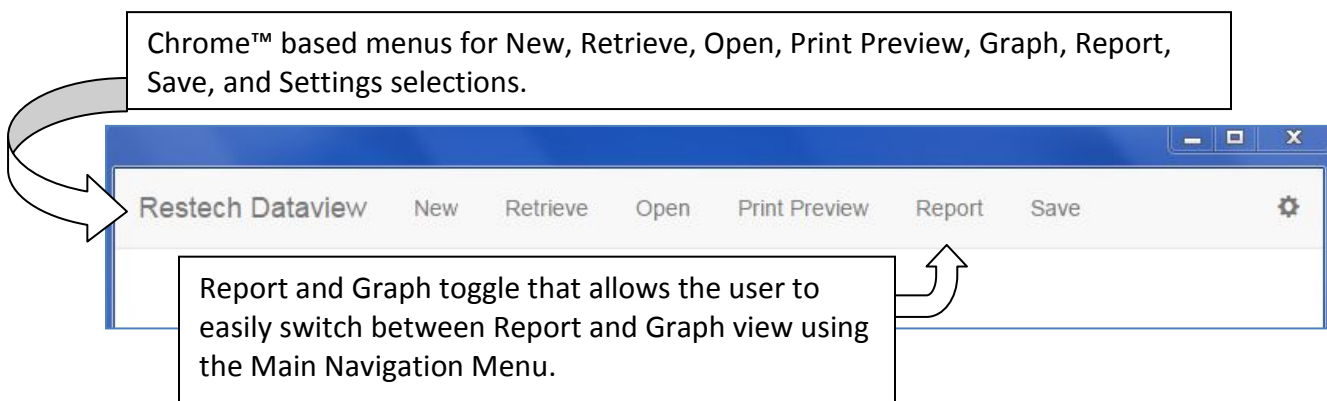
1. Introduction to DataView v4

DataView is provided on the Restech DataView v4 thumbdrive/SD card/software CD, may be downloaded via the Chrome App Store, and also installed during an online Restech technical support session.

DataView v4 features the following enhancements:

- 1) **STANDARD CLOCK**
DataView displays time in 24 hour clock format.
- 2) **SIMPLE CHROME STYLE MENU AND TABS**
DataView uses the Main Navigation Menu and dialog boxes for user-friendly control.
- 3) **EDITABLE PH STUDY GRAPH**
DataView allows the user to precisely edit the pH Study Graph using the Graph Toolbar.
- 4) **COMPREHENSIVE REPORT**
DataView displays a comprehensive Report page with the pH Study Graph, Event Calculations Table, Symptom Correlations Table, Acid Exposure Graph, and RYAN Score Table.
- 5) **MULTIPLE BASELINES**
DataView displays event and symptom calculations for four different baseline pH.
- 6) **FAST EVENT AND SYMPTOM CALCULATIONS**
DataView automatically calculates and presents events and symptoms in an easily viewable table on the Report page.
- 7) **ADJUSTABLE COLORS**
DataView allows the user to customize settings.

DataView has a simplified Graphical User Interface that incorporates a Chrome™ based menu.



2. System Requirements

Google Chrome™ Browser

The DataView program is an App that operates using the Google Chrome™ web browser. Chrome™ updates should not affect the DataView App.

Operating System Compatibility

The DataView App runs on the following operating systems: Windows Vista®, Windows 7®, Windows 8®, Windows 8.1®, and Windows 10®.

Minimum System Requirements

Each computer must have access to a printer (local or networked). The following are the minimum recommended system requirements for computers using DataView:

Description	Minimum Requirement
Processor type	Intel Pentium® Dual-Core or equivalent
Random Access Memory	512 MB
Free Disk Space	410 MB for program; 6 MB per study file
Pointing device	Mouse, touchpad, or equivalent device
Data Card reader	Compatible with SD memory card

Program/User Security Requirements

Entry into the DataView App is not password protected. Users are expected to password protect the computing device on which the program runs. Access to patient data and files will be controlled by users.

User permissions

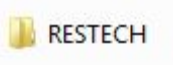

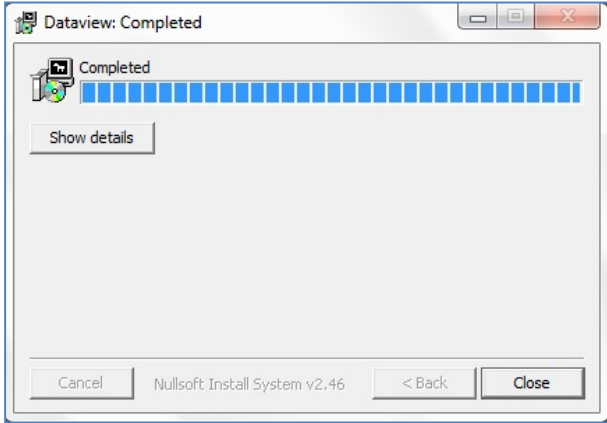
The user must be logged into an administrator account to properly install DataView. After installation, any user may use the DataView App.

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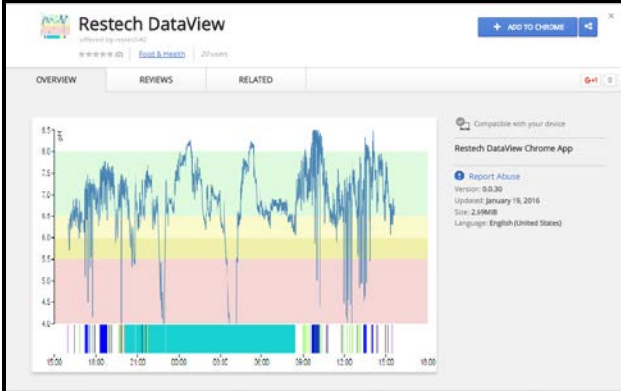
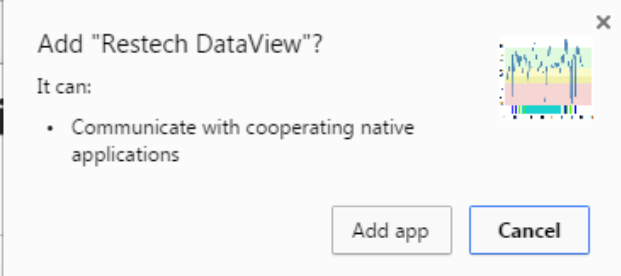
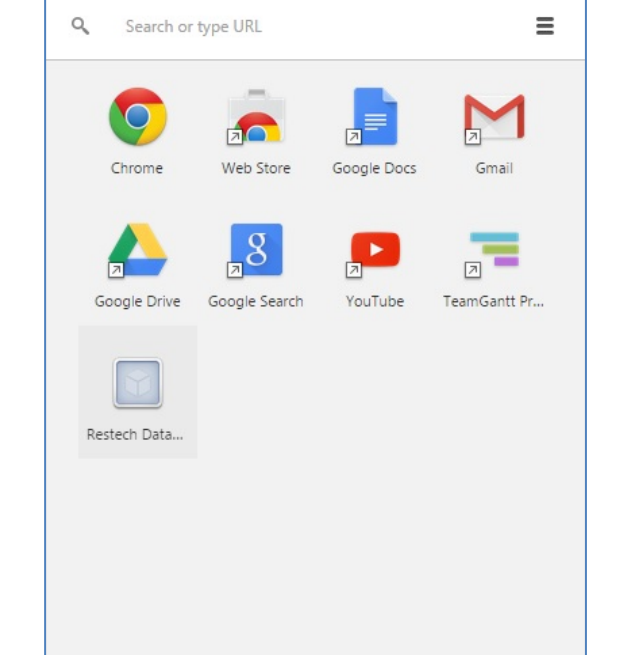
3. Installing DataView v4 Software

3.1 Online Install

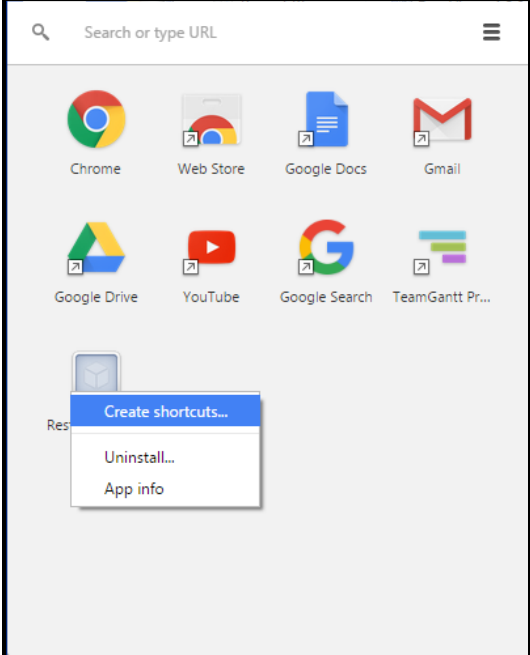
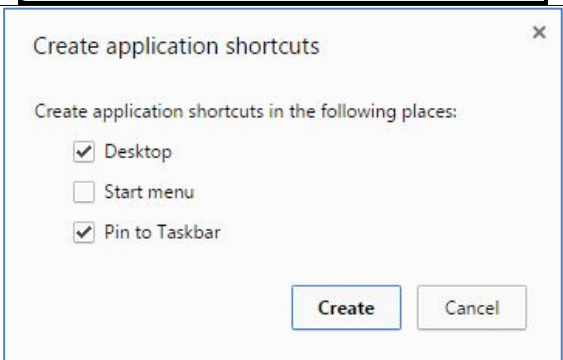

The computer must have Google Chrome downloaded and installed. With a working internet connection, the DataView software may be installed through the Chrome App Store in combination with a “node” program that interfaces between the App and the computer operating system. *Note: Must be logged in as administrator user to properly install DataView.*

1	Insert the Restech DataView v4 thumbdrive/SD card/software CD into your computer's USB port/SD card reader/CD drive or call Restech Tech Support to have the latest “node” program downloaded to your computer.	
2	The RESTECH multimedia dialog box will automatically appear OR you may find the file using Windows Explorer. Click the option to “Open folder to view files.”	
3	You MUST copy the RESTECH folder onto the Desktop	
4	Open the RESTECH folder by double clicking the folder.	
5	Double click on the Setup folder.	
6	Run the Setup.exe file. Close the DataView Completed dialog box.	

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7	<p>Follow the link to get to the Restech DataView v4 App on the Google Chrome App Store.</p> <p>https://chrome.google.com/webstore/detail/restech-dataview/eohbgokbnihaadhjpgllfigpljimoepk</p> <p>Click “ADD TO CHROME” to download the App.</p>	
8	<p>An “Add ‘Restech DataView?’” dialog box appears. Click “Add app”.</p>	
9	<p>The Restech DataView App will be added to the Chrome App Launcher on the Taskbar.</p>	

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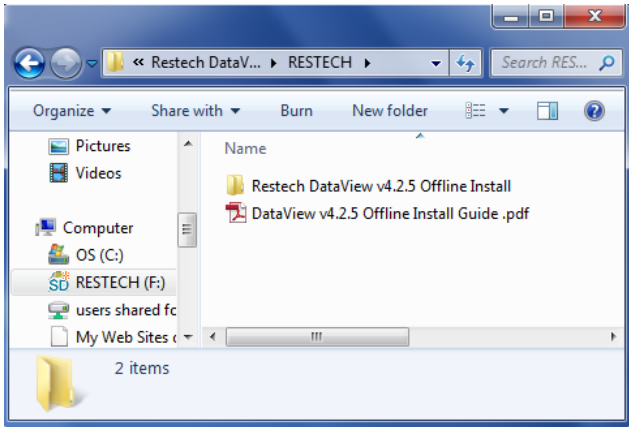
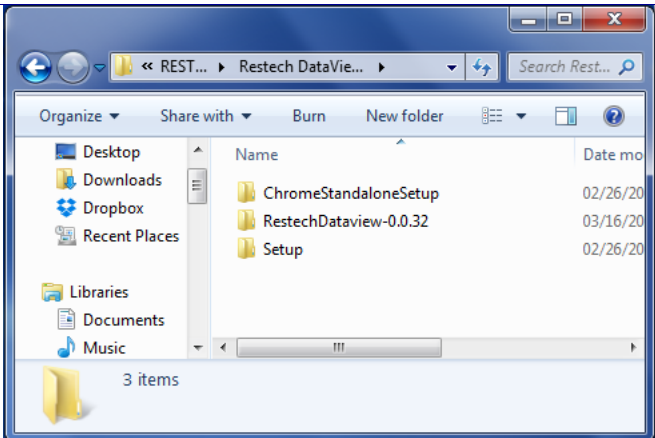
10	<p>Right Click the Restech DataView App on the Chrome App Launcher and click "Create shortcuts..."</p>	
11	<p>Check the "Desktop" and "Pin to Taskbar" boxes to create application shortcuts. Click "Create"</p>	
12	<p>To open DataView v4, click "Launch App" on the Chrome App Store OR click on the Restech Dataview App from the Chrome App Launcher, PC Desktop, or Taskbar Quick Launch.</p>	

NOTE: Setup file must be executed or else error will appear when adding App.

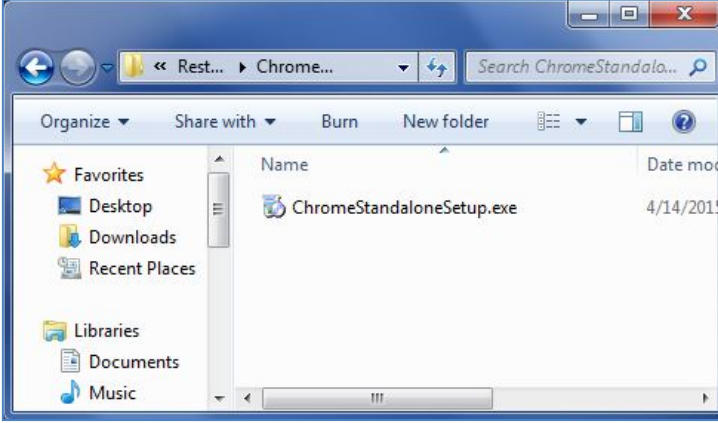
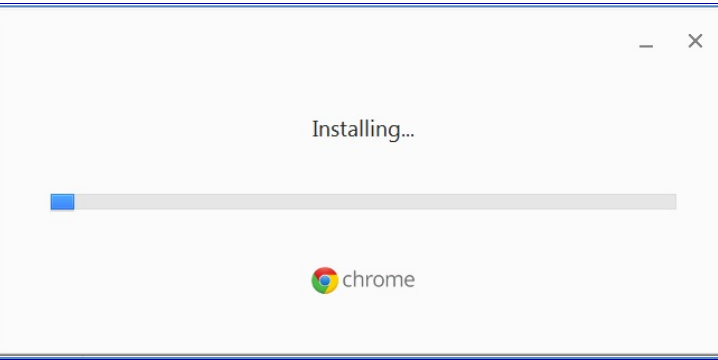

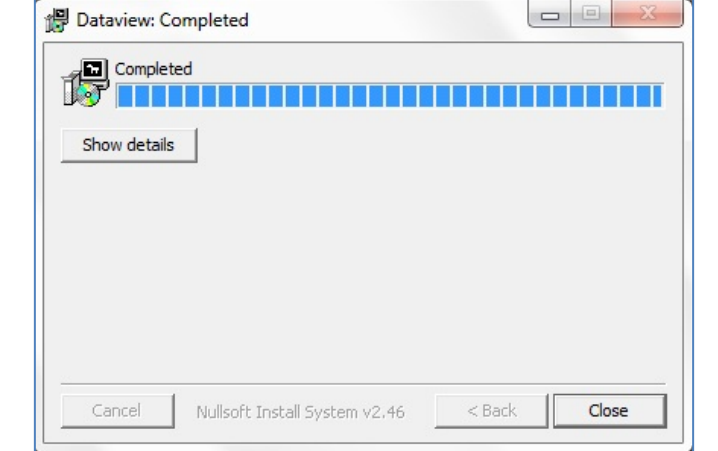
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3.2 Offline Install

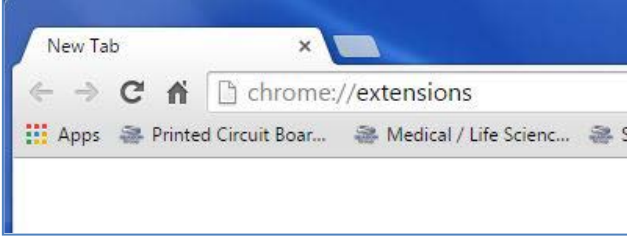
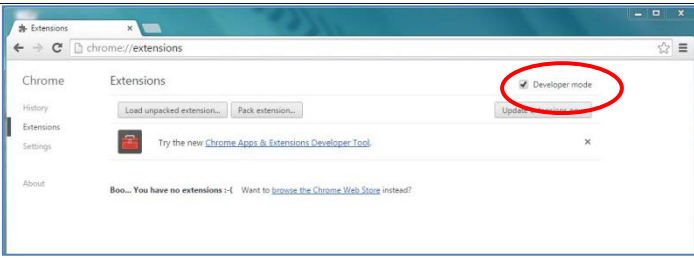
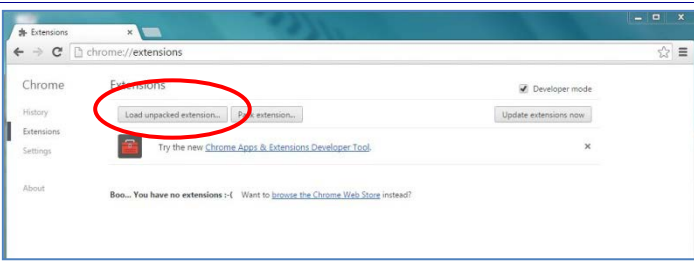
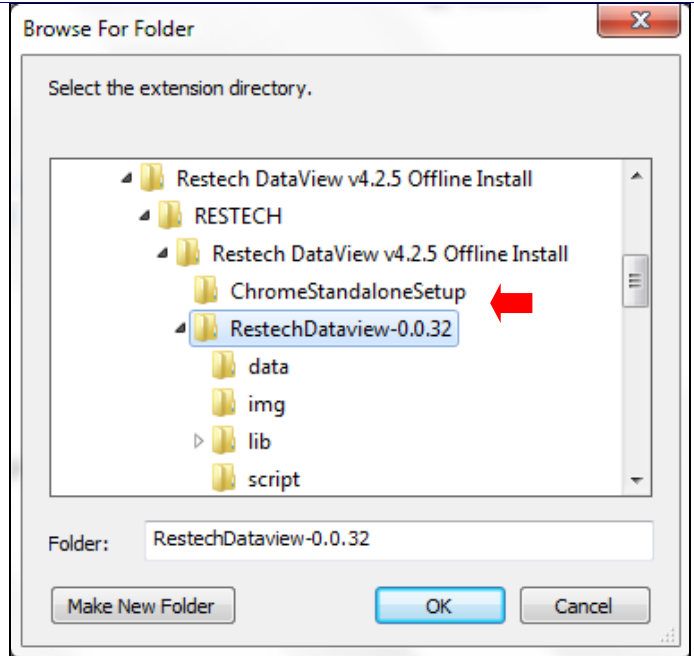
Without a working internet connection, the DataView software may be installed through provided on the Restech DataView v4 thumbdrive/SD card/software CD.

1	Insert the Restech DataView v4 thumbdrive/SD card/software CD into your computer's USB port/SD card reader/CD drive or call Restech Tech Support to have the latest DataView version downloaded to your computer.	
2	The RESTECH multimedia dialog box will automatically appear OR you may find the file using Windows Explorer. Click the option to "Open folder to view files."	
3	Open the RESTECH folder by double clicking the folder.	
4	Open the DataView v4 Offline Install Guide by double clicking on the PDF. Follow the listed instructions.	
5	You MUST copy the latest Restech DataView version Offline Install folder onto the Desktop. NOTE: Must be logged in as administrator user to properly install DataView.	
6	From the Desktop, double click to open the Restech DataView Offline Install folder.	

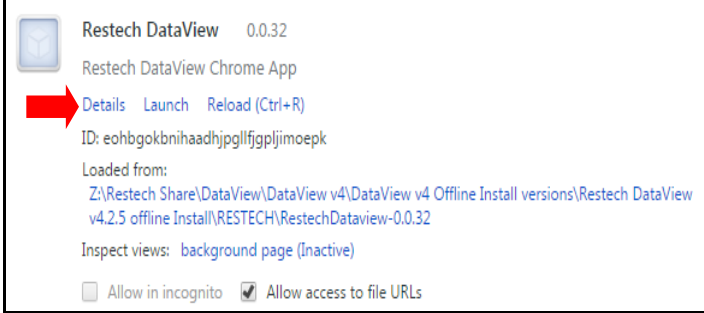
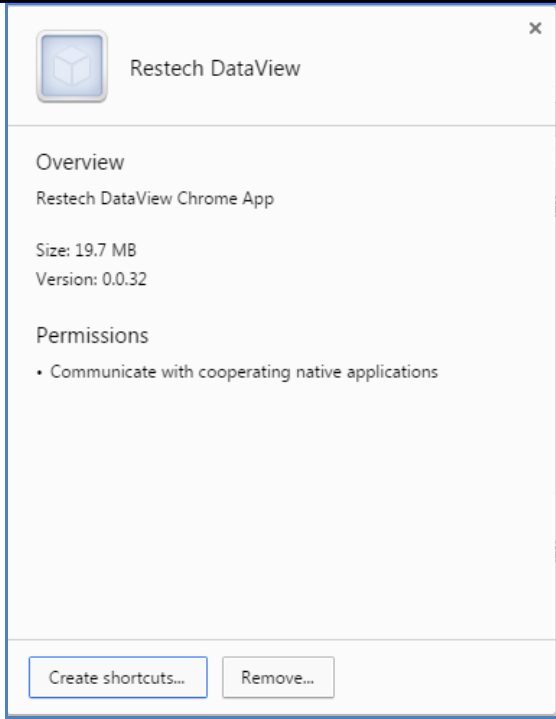
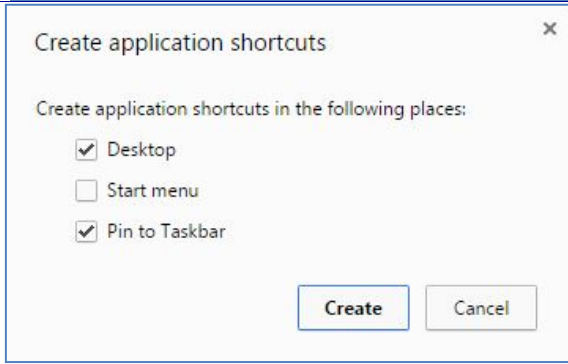
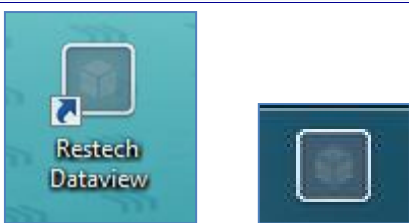
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7	Double click on the ChromeStandaloneSetup folder.	
8	Run the ChromeStandaloneSetup.exe file.	
9	Double click on the Setup folder.	
10	Run the Setup.exe file. Close the DataView Completed dialog box.	

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11	Open Chrome and type “chrome://extensions” into the address bar.	
12	Check the “Developer mode” box in the upper right section.	
13	Click the “Load unpacked extension” button in the upper left section.	
14	Navigate to the Restech Dataview-0.0.32 folder (or the latest version downloaded) and click “OK”.	

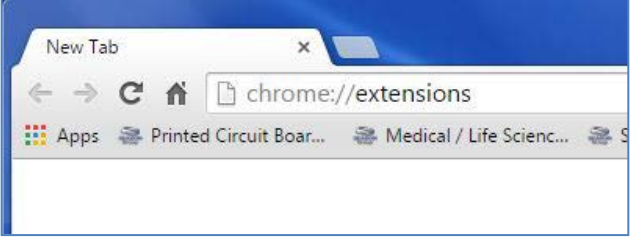
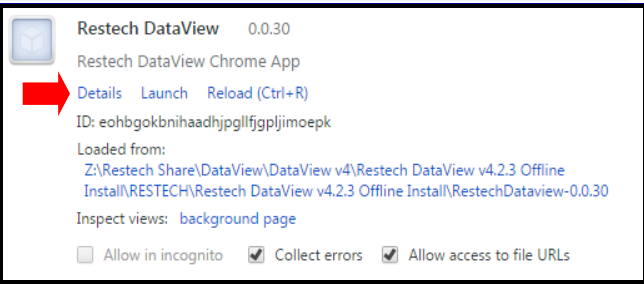
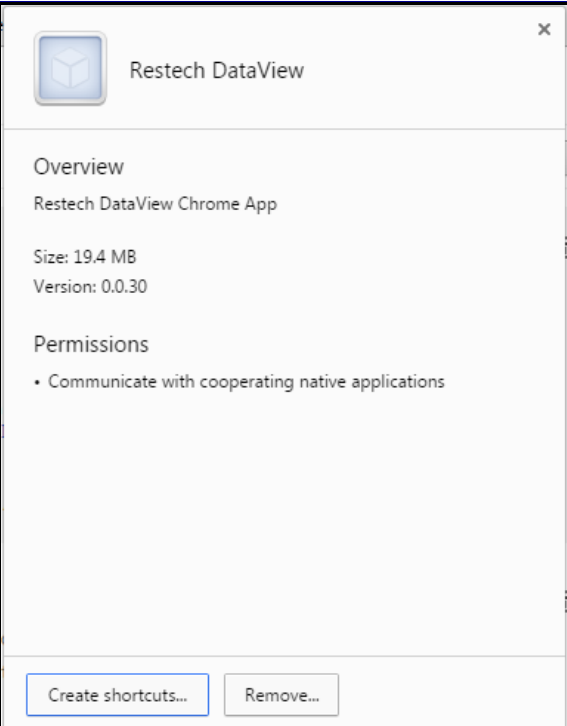
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15	Click the “Details” link under Restech DataView Chrome App.	 <p>Restech DataView 0.0.32</p> <p>Restech DataView Chrome App</p> <p>Details Launch Reload (Ctrl+R)</p> <p>ID: eohbgokbniaadhjgplfjgpljimoepk</p> <p>Loaded from: Z:\Restech Share\DataView\DataView v4\DataView v4 Offline Install versions\Restech DataView v4.2.5 offline Install\RESTECH\RestechDataView-0.0.32</p> <p>Inspect views: background page (Inactive)</p> <p><input type="checkbox"/> Allow in incognito <input checked="" type="checkbox"/> Allow access to file URLs</p>
16	Click the “Create shortcuts” button on the Details dialog box.	 <p>Restech DataView</p> <p>Overview</p> <p>Restech DataView Chrome App</p> <p>Size: 19.7 MB</p> <p>Version: 0.0.32</p> <p>Permissions</p> <ul style="list-style-type: none"> Communicate with cooperating native applications <p>Create shortcuts... Remove...</p>
17	Check the “Desktop” and “Pin to Taskbar” boxes to create application shortcuts. Click “Create”.	 <p>Create application shortcuts</p> <p>Create application shortcuts in the following places:</p> <p><input checked="" type="checkbox"/> Desktop</p> <p><input type="checkbox"/> Start menu</p> <p><input checked="" type="checkbox"/> Pin to Taskbar</p> <p>Create Cancel</p>
18	On the PC Desktop or Taskbar Quick Launch, click the Restech DataView Icon to launch the DataView App.	

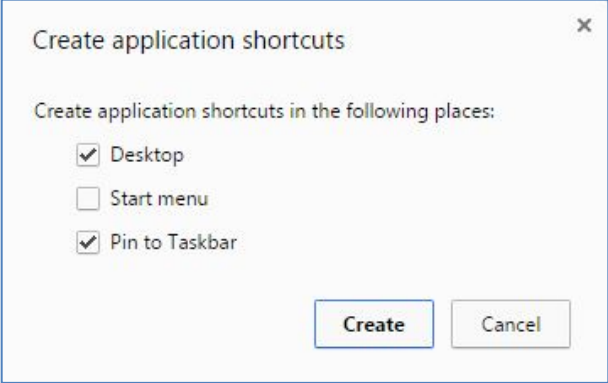
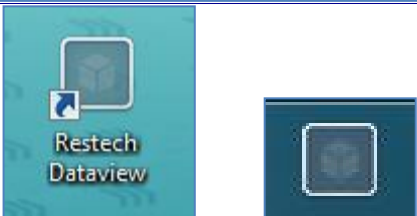
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3.3 Creating the App Icon

With the DataView software installed, Restech DataView App Icon shortcuts may be created on the Desktop and Taskbar for easy access.

1	To create shortcuts for DataView v4, open Chrome and type “chrome://extensions” into the address bar.	
2	Click the “Details” link under Restech DataView Chrome App.	
3	Click the “Create shortcuts” button on the Details dialog box.	

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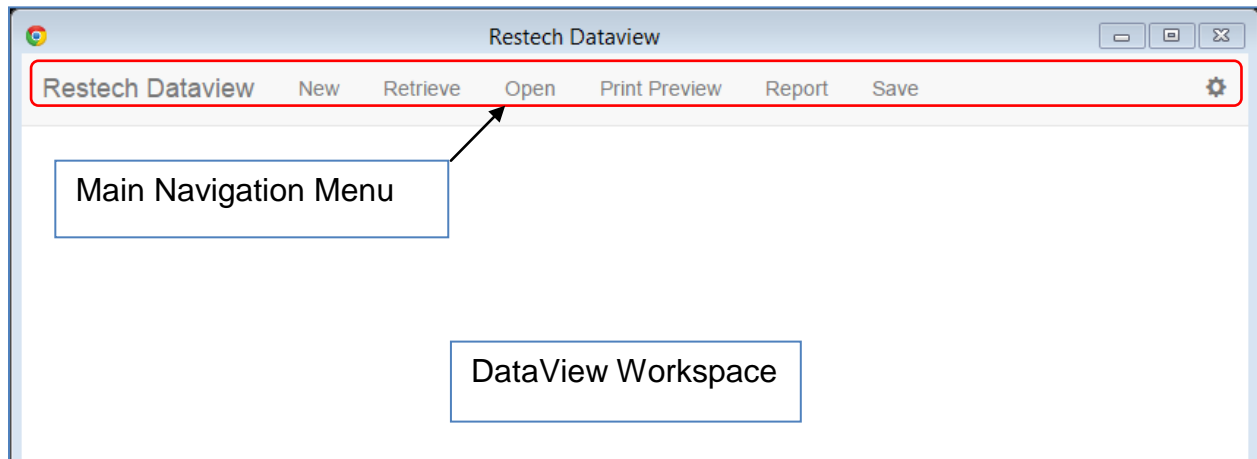
4	<p>Check the “Desktop” and “Pin to Taskbar” boxes to create application shortcuts. Click “Create”.</p>	
5	<p>On the PC Desktop or Taskbar Quick Launch, click the Restech DataView Icon to launch the DataView App.</p>	

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4. Starting the DataView Software

To start the DataView Software, click on the Restech Dataview Icon from the Taskbar, Desktop, or Chrome App Launcher.

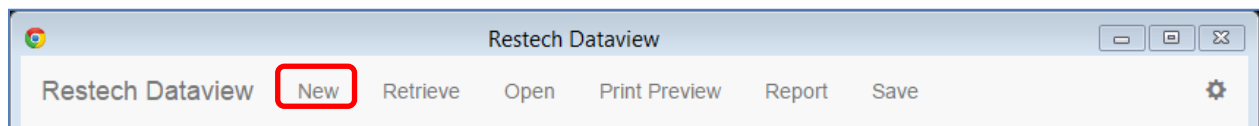
DataView launches with the Main Navigation Menu in the blank DataView Workspace.



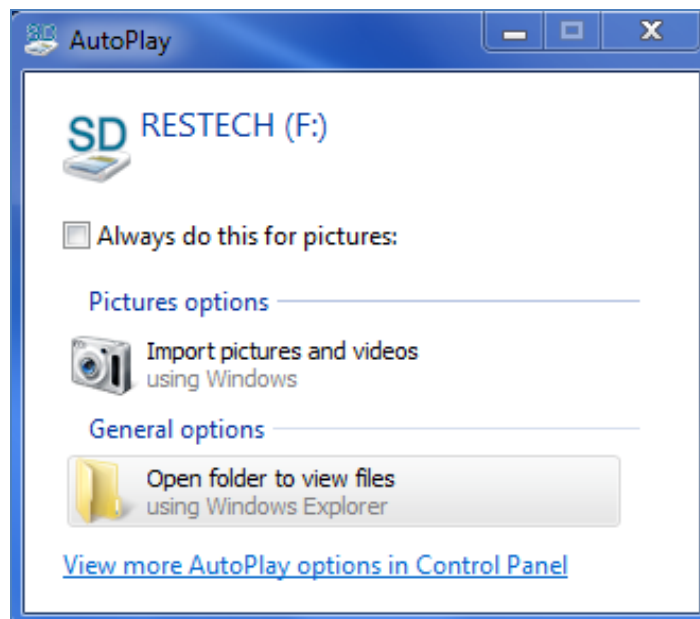
5. Main Navigation Menu Selection “New”

5.1 Saving New Study Information

The "New" Main Navigation Menu Selection displays a New Study dialog box with input fields for the user to enter Patient Details, Custom Symptoms, and Study Details in separate tabs.

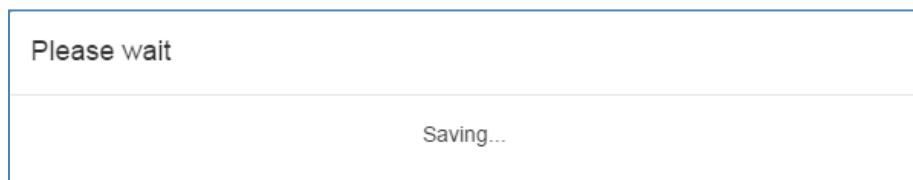


To set-up a New Study, insert a RESTECH formatted SD card into your computer's SD card reader. A navigation pane may display the data card file directory. Close it and continue.



Click on the "New" Main Navigation Menu Selection and enter Patient Details, Custom Symptoms, and Study Details according to Sections 5.1.1 – 5.1.3.

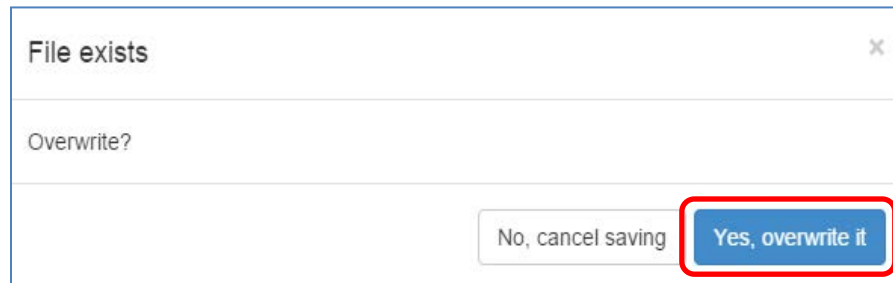
Click "Save" from any tab in the New Study dialog box. The 'Please wait Saving' box is displayed.



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Once the New Study information is saved to the RESTECH SD card, the 'Please wait Saving' box disappears and the DataView Workspace is displayed.

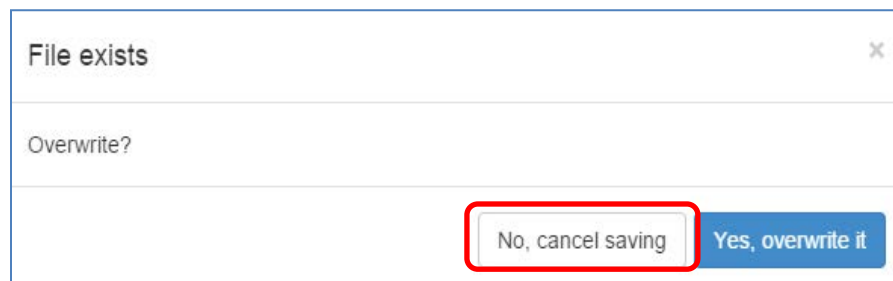
If there is an existing study on the RESTECH SD card, when the user clicks "Save" from any tab in the New Study dialog box, a 'File exists Overwrite?' dialog box is displayed.



If the user is confident that the existing study has already been saved to the computer and is no longer needed, click "Yes, overwrite it." The 'Please wait Saving' box is displayed.

Once the New Study information is saved to the RESTECH SD card, the 'Please wait Saving' box disappears and the DataView Workspace is displayed.

If the user is not confident that the existing study has already been saved to the computer and might be needed, click "No, cancel saving." The 'File exists Overwrite?' dialog box disappears and the DataView Workspace is displayed.



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5.1.1 Patient Details Tab

Click on the "New" Main Navigation Menu Selection to open a New Study dialog box. The first tab displays Patient Details input fields.

Click in the field boxes to input patient data according to the available controls:

Field	Available Controls
Patient Last	30 characters
Patient First	30 characters
Study Date	dd-mm-yyyy [selectable, drop down]
Patient ID	30 characters
Birth Date	dd-mm-yyyy [selectable, drop down]
Gender	male/female [selectable, toggle]
Patient Weight	n pounds (n kg) [selectable, toggle]
Patient Height	n inches (n cm) [selectable, toggle]

New Study

Patient Details

Custom Symptoms

Study Details

Last Name *

First Name *

Study Date *

dd

mm

yyyy

Patient ID

Birthdate

dd

mm

yyyy

Gender

male

Weight

kg

Height

cm

* required field

Cancel

Save

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The required fields Last Name, First Name, and Study Date are labeled with an asterisk. If the user clicks "Save" without entering patient information into these field boxes, the required fields turn red.

Required:
Last Name
First Name
Study Date

New Study

Patient Details

Custom Symptoms

Study Details

Last Name *

First Name *

Study Date *

dd

mm

yyyy

Patient ID

Birthdate

dd

mm

yyyy

Gender

male

Weight

kg

Height

cm

* required field

Cancel

Save

Enter patient information into the required fields and click "Save" to continue with saving a New Study.

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5.1.2 Custom Symptoms Tab

Click on the "New" Main Navigation Menu Selection to open a New Study dialog box. The second tab displays Custom Symptoms input fields.

Click in the field boxes to input patient data according to the available controls:

Field	Available Controls
Symptom 1	4 characters
Symptom 2	4 characters
Symptom 3	4 characters

The screenshot shows a 'New Study' dialog box with a close button (X) in the top right corner. It features three tabs: 'Patient Details', 'Custom Symptoms' (which is the active tab), and 'Study Details'. Under the 'Custom Symptoms' tab, there are three input fields labeled 'Symptom 1', 'Symptom 2', and 'Symptom 3'. At the bottom right of the dialog, there are 'Cancel' and 'Save' buttons.

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5.1.3 Study Details Tab

Click on the "New" Main Navigation Menu Selection to open a New Study dialog box. The third tab displays Study Details input fields.

Click in the field boxes to input patient data according to the available controls:

Field	Available Controls
Technician	30 characters
Physician	30 characters
Referring	30 characters
Study Type	pharyngeal [selectable]
Indication	Infinite characters
Antireflux Med.	30 characters

The screenshot shows a 'New Study' dialog box with a close button (X) in the top right corner. It has three tabs: 'Patient Details', 'Custom Symptoms', and 'Study Details', with the 'Study Details' tab currently selected. The 'Study Details' tab contains the following input fields:

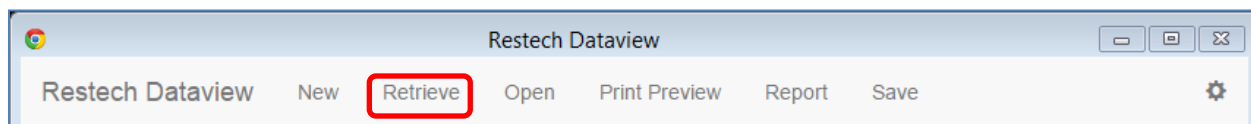
- Technician**: A text input field.
- Physician**: A text input field.
- Ref. Physician**: A text input field.
- Study Type**: A dropdown menu with 'pharyngeal' selected and a downward arrow on the right.
- Indication**: A text input field.
- Antireflux Med.**: A text input field.

At the bottom right of the dialog box, there are two buttons: 'Cancel' and 'Save'.

6. Main Navigation Menu Selection “Retrieve”

6.1 Retrieve a Completed Study

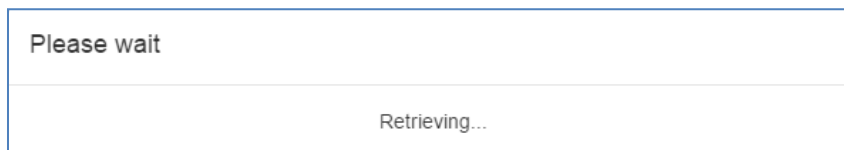
The "Retrieve" Main Navigation Menu Selection allows the user to save a completed study into the Restech data folder and to pull up the study data into the Graph Workspace.



To retrieve a patient study, remove the RESTECH formatted SD card from the Dx-Recorder and insert it into your computer's SD card reader. You may use the SD card reader supplied by Restech if your computer does not have a built-in card reader. A navigation pane may display the data card file directory. Close it and continue.

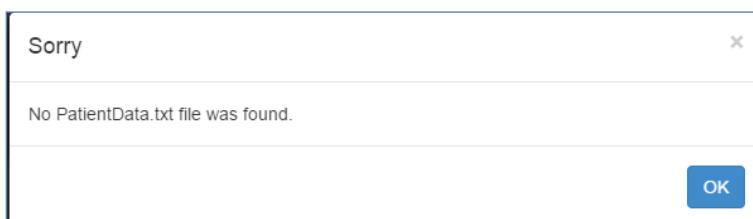
Start the DataView software by clicking on the Restech Dataview Icon. DataView launches with the Main Navigation Menu in the blank DataView Workspace.

Click on the "Retrieve" Main Navigation Menu Selection. A 'Please wait Retrieving' dialog box is displayed.



When DataView completes the data retrieval, the 'Please wait Retrieving' dialog box will disappear and the Graph Workspace will show the patient's pH Study Graph.

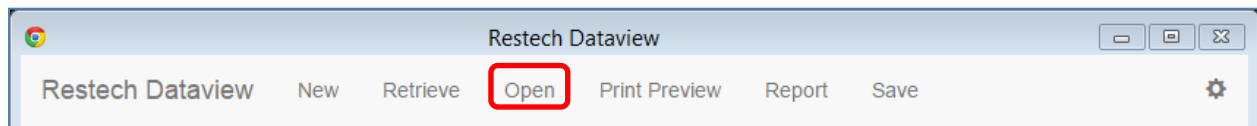
If there is no patient study on the SD card, a 'Sorry No PatientData.txt file was found' dialog box is displayed. Click "OK" to return to the DataView Workspace. Insert another SD card with a patient study to retrieve a study.



7. Main Navigation Menu Selection “Open”

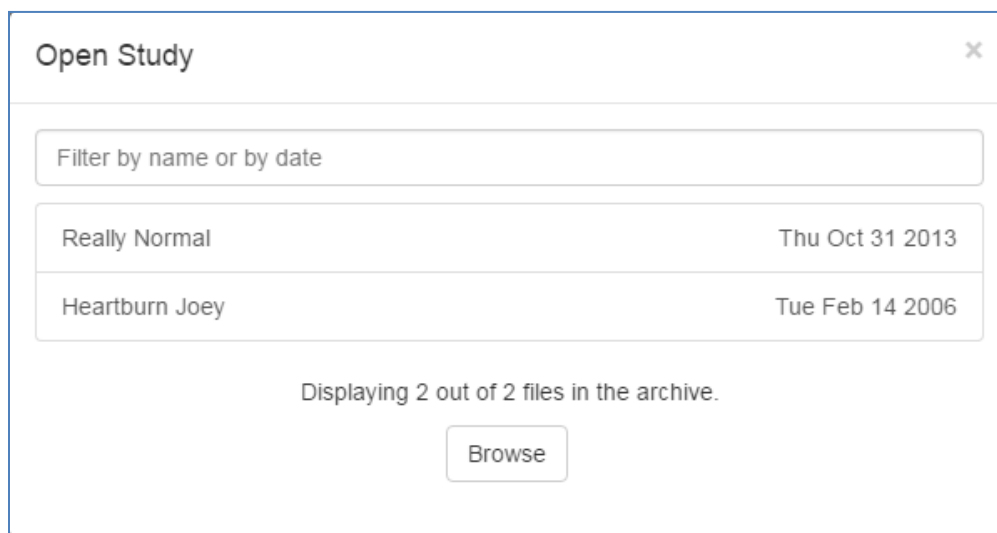
7.1 Open an Existing Study

The "Open" Main Navigation Menu Selection displays an Open Study dialog box with a file search field, a list of recent files saved in the directory for the user to open a patient study, a "Browse" button for the user to open a patient study from anywhere on the computer. Two demo files, 'Heartburn Joey' and 'Really Normal' are provided in the dialog box.



To open a patient study, click on the "Open" Main Navigation Menu Selection.

With the fresh install of the DataView software, there will be 2 patient study files available to open, 'Heartburn Joey' and 'Really Normal'. Additional patient study files will be added when completed studies have been retrieved according to Section 6.1.



Once patient study files have been retrieved and saved in DataView, the Open Study dialog box will display a list of 10 most recent PatientData.txt files in the format 'Lastname Firstname study date.'

DataView v4 User Guide

Open Study

Filter by name or by date

DataView Test File	Wed Aug 13 2014
Huff Dan (modified)	Wed May 07 2014
Huff Dan	Wed May 07 2014
Really Normal	Thu Oct 31 2013
Data Test File	Mon Aug 13 2007
Heartburn Joey	Tue Feb 14 2006
Normal Norm (modified)	Thu Nov 03 2005
Normal Norm	Thu Nov 03 2005
Won Don (modified)	Fri Jul 01 2005
Won Don	Fri Jul 01 2005

Displaying 10 out of 10 files in the archive.

Browse

Click in the file search field to search for the desired patient study. Click on a name to pull up the study data into the Graph Workspace.

To open a patient study that is not saved in the DataView Restech folder and does not appear in the directory; click the "Browse" button.

Open Study

Filter by name or by date

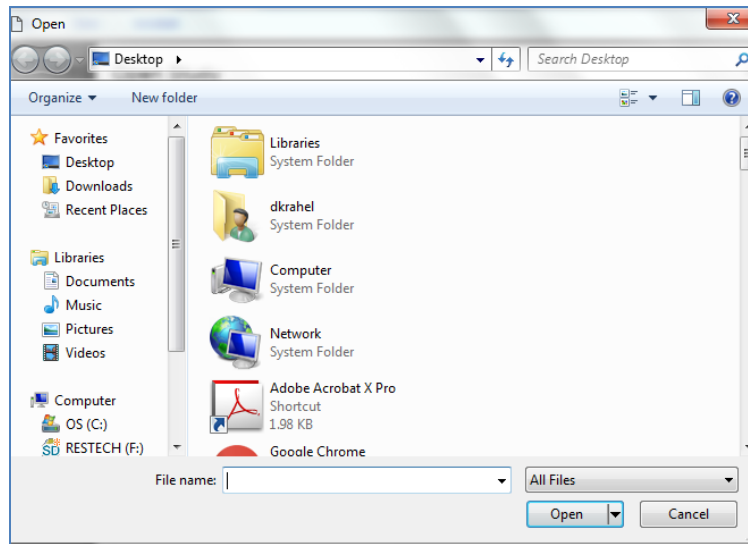
Really Normal	Thu Oct 31 2013
Heartburn Joey	Tue Feb 14 2006

Displaying 2 out of 2 files in the archive.

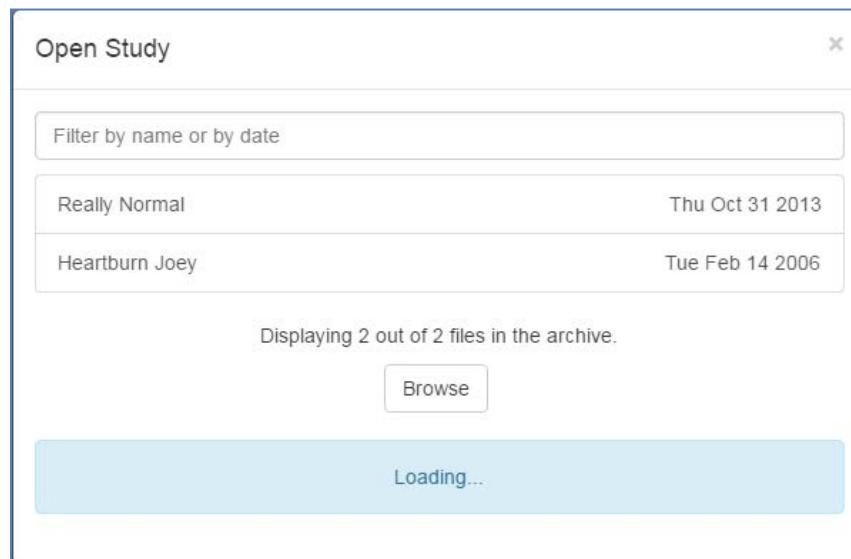
Browse

DataView v4 User Guide

A Windows Navigation Pane will display which allows navigation through the computer to locate and open the desired patient study.



When a desired patient study is selected, "Loading..." is displayed at the bottom of the Open Study dialog box.

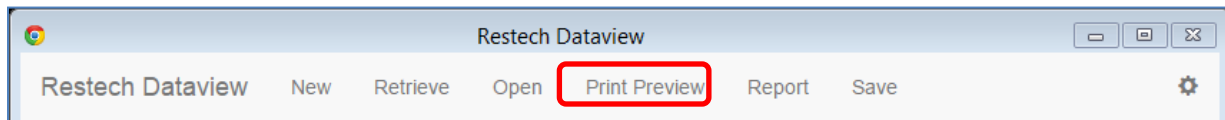


When DataView completes the patient study retrieval, the Open Study dialog box will disappear and the Graph Workspace will show the patient's pH Study Graph.

8. Main Navigation Menu Selection "Print Preview"

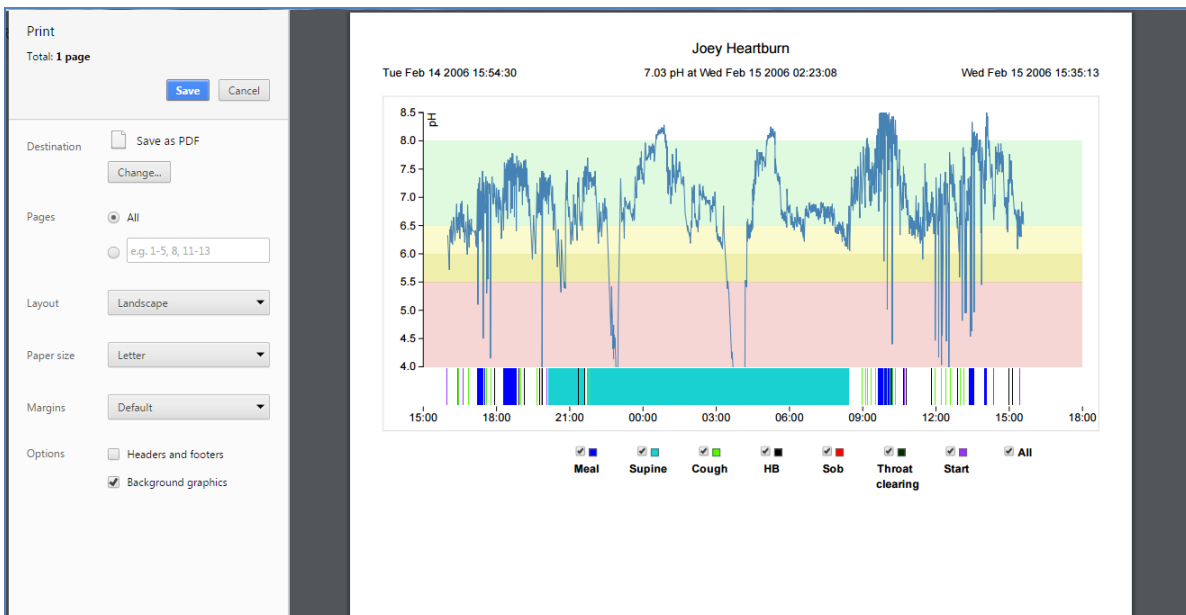
8.1 Print Graph

The "Print Preview" Main Navigation Menu Selection allows the user to print Graphs and Reports using the Chrome browser print function.



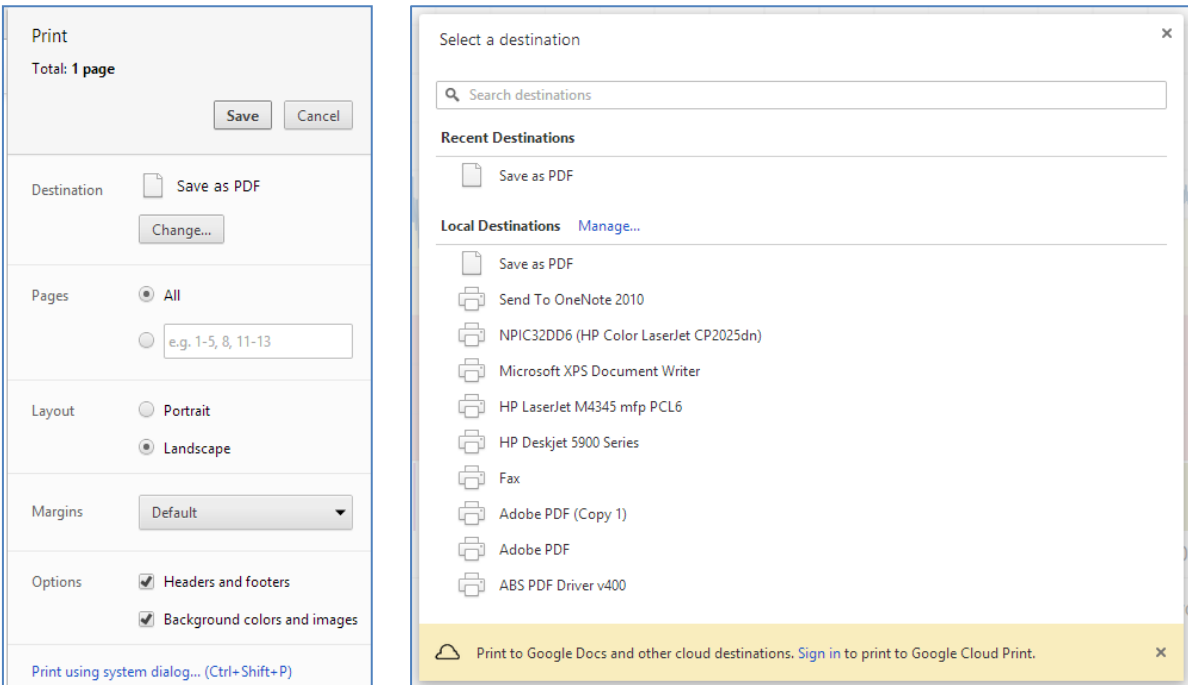
To print a Graph from the Graph Workspace, select "Print Preview" from the Main Navigation Menu. Select the Landscape Layout Orientation.

If the background graphics box is checked, the event symptoms will be colored.

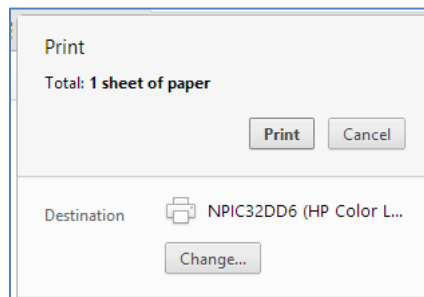


DataView v4 User Guide

Click the "Change..." button to display a dialog box with available print selections.



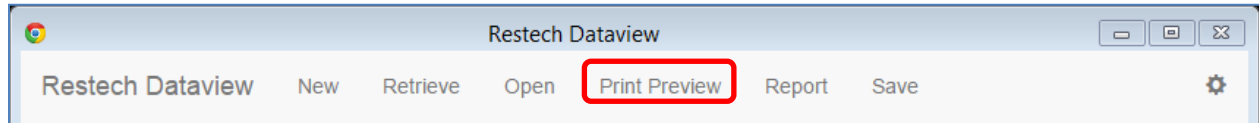
With the desired printer selected, click Print. The Graph prints from the desired printer.



DataView v4 User Guide

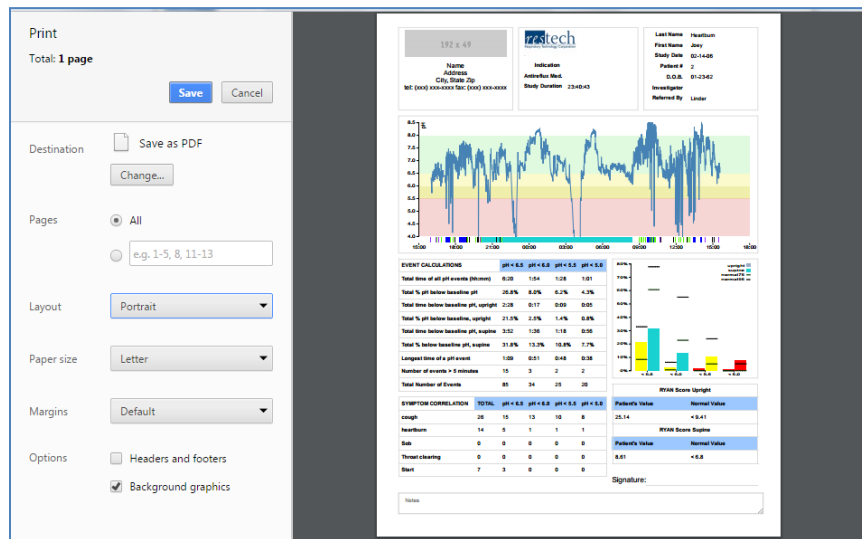
8.2 Print Report

The "Print Preview" Main Navigation Menu Selection allows the user to print Graphs and Reports using the Chrome browser print function.

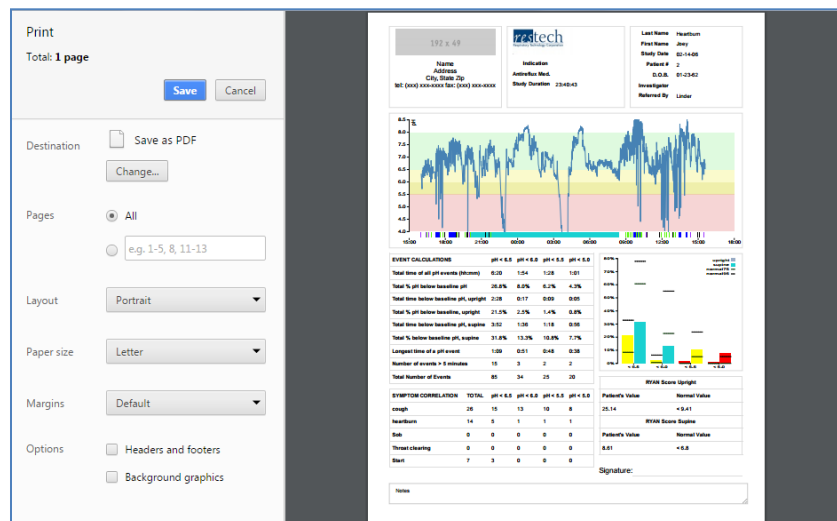


To print a Report from the Report Workspace, select "Print Preview" from the Main Navigation Menu. Select the Portrait Layout Orientation.

If the background graphics box is checked, the headers will be colored.

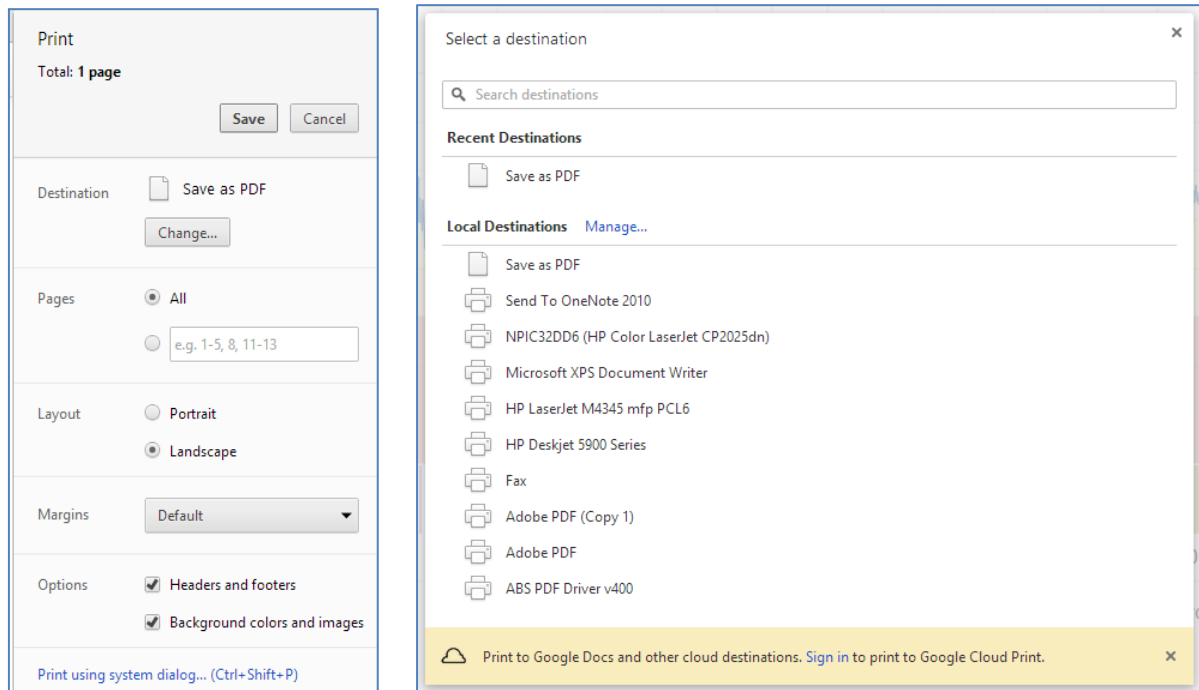


If the background graphics box is unchecked, the headers will be white.

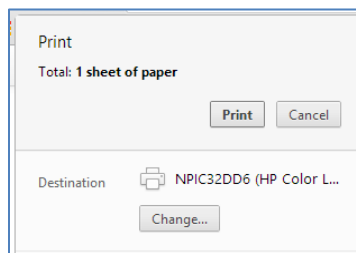


DataView v4 User Guide

Click the "Change..." button to display a dialog box with available print selections.



With the desired printer selected, click Print. The Graph prints from the desired printer.

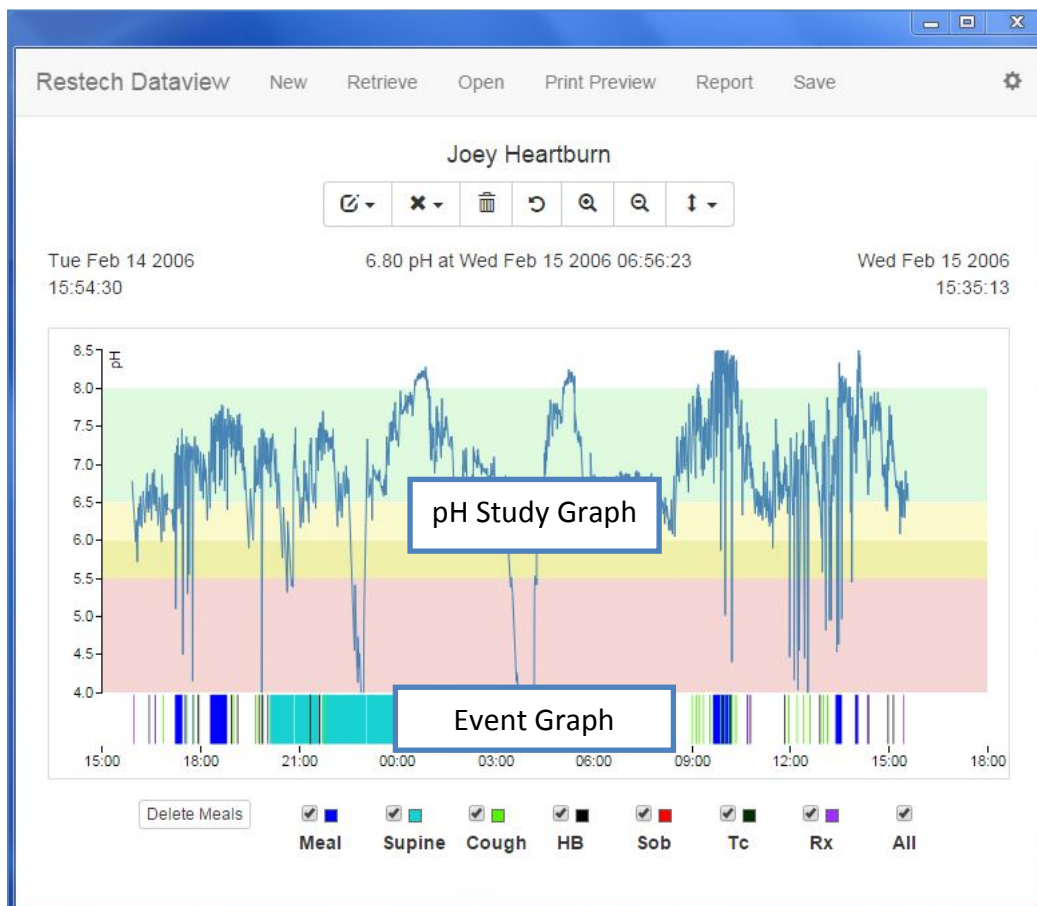


9. Main Navigation Menu Selection “Graph”

9.1 View and Edit pH Study Graph

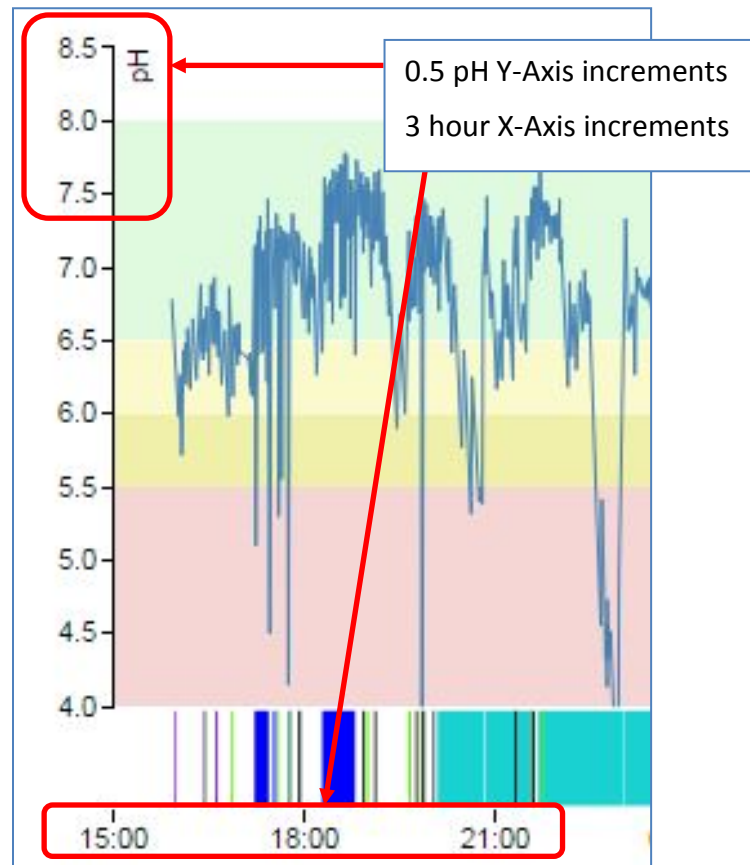
The default representation of the patient study files is given in the Graph Workspace. The pH Study Graph displays the pH values versus time. The Event Graph below the pH Graph displays patient symptoms and pH study events.

The Patient Name is displayed at the top of the Graph Workspace above the Graph toolbar.

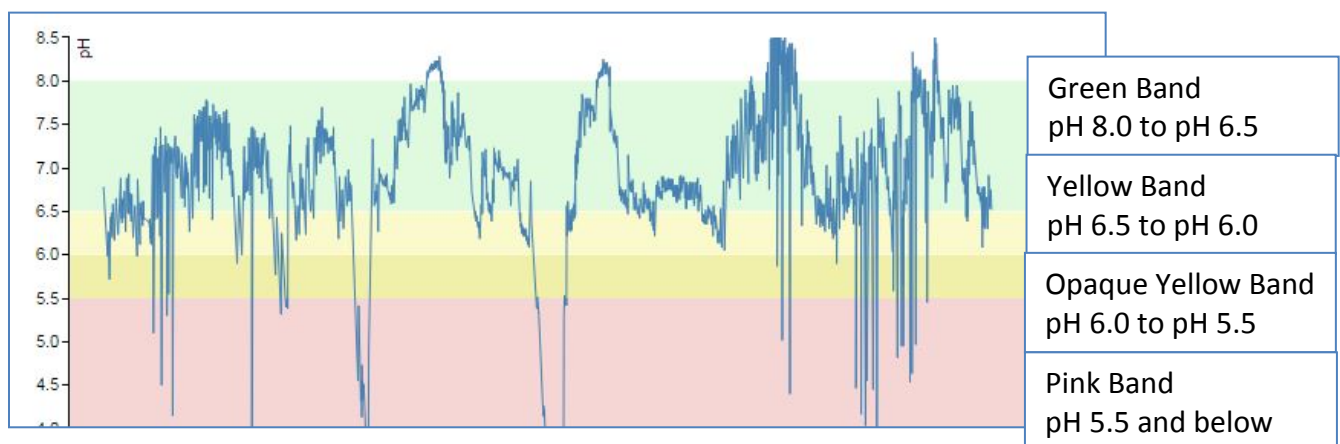


DataView v4 User Guide

The vertical axes of the pH Study Graph measure at 0.5 pH increments and the horizontal axes measure at 3 hour increments.



Four horizontal color bands appear on the pH Study Graph in the Graph Workspace for each baseline. The colors of these bands may be changed in the "Settings" Main Navigation Menu Selection.

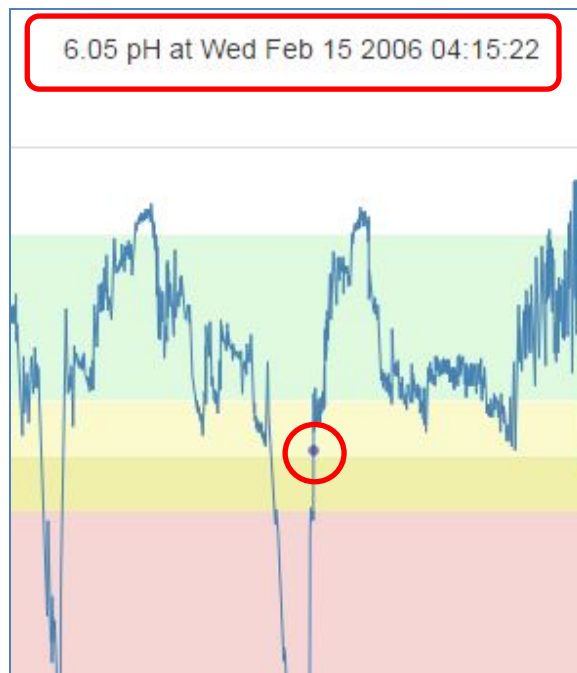


DataView v4 User Guide

The trackball function allows the user to locate specific pH data points or time within the study using the cursor.

Hover the mouse cursor over the pH data of the pH Graph and move horizontally along the points of the study. The trackball follows the movement of the mouse cursor along the pH Graph.

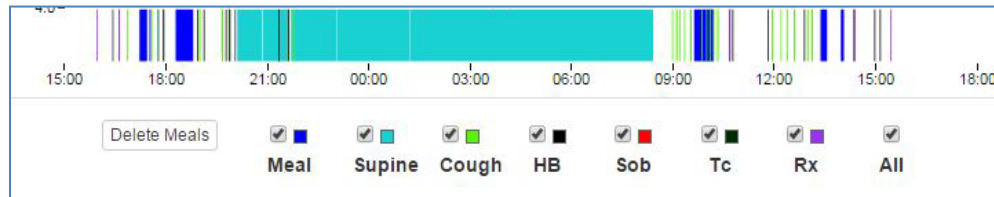
The trackball pH and time are displayed above the pH Graph in the area below the Graph toolbar. The pH value and time on the trackball display change to match the pH, time, and date of each point on the pH Graph.



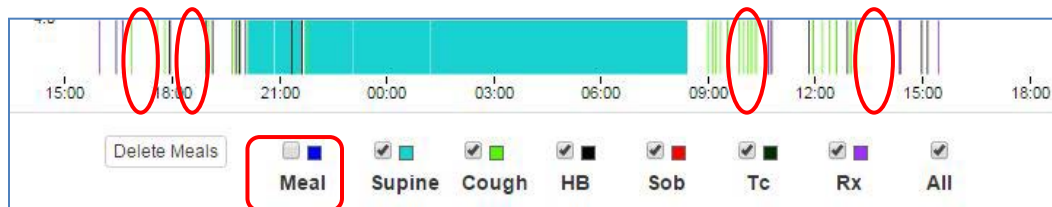
DataView v4 User Guide

9.2 View and Edit Event Graph

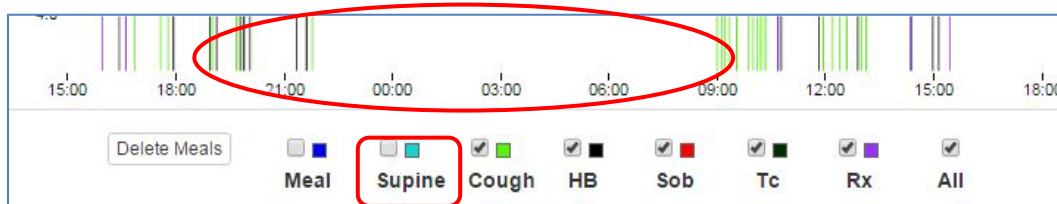
The Event Graph displays events marked by patient button presses on the Dx-Recorder during the pH study. You may visually correlate patient symptoms, meals, and supine periods with changes in pH. The pH Graph and Event Graph share the X-axis (time).



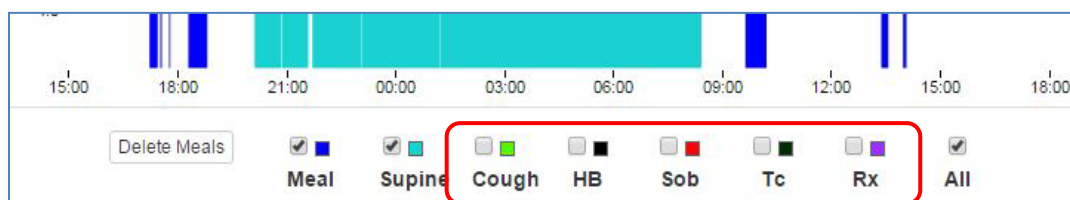
Each checkbox allows the user to show or hide the corresponding symptom. Unchecking the meals checkbox removes the blue meal markers from the Event Graph.



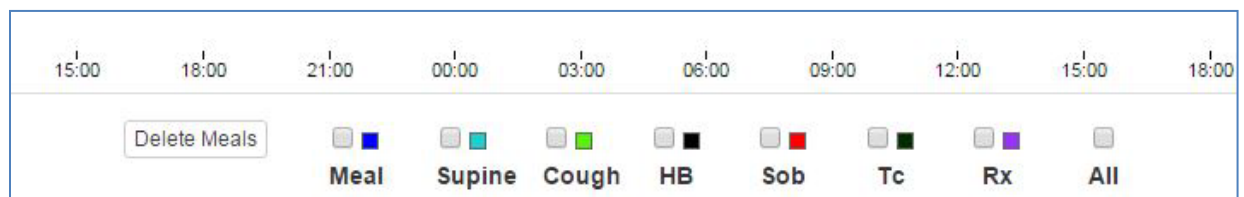
Unchecking the supine checkbox removes the teal supine markers from the Event Graph.



Unchecking the symptom checkboxes removes the button press symptom markers from the Event Graph.



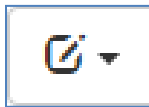
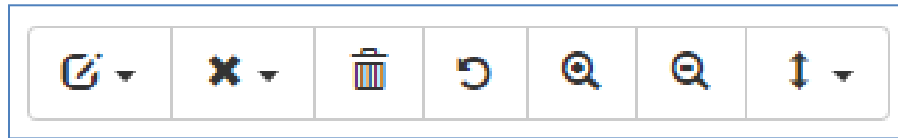
Unchecking the All checkbox removes all event and symptom markers from the Event Graph.



DataView v4 User Guide

9.3 Graph Toolbar

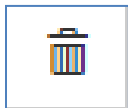
The DataView Software contains tools located in the Graph toolbar to precisely edit the pH Graph to match the written patient diary entries.



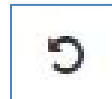
Adds events and symptoms in a selected range



Remove events and symptoms in a selected range — does not remove pH data



Delete pH data, events, and symptoms in a selected range — removes pH data



Undo the last undoable command: erases the last change done to the Graph reverting it to the previous state



Zoom in on pH data in selected range



Zoom out to original size of Graph



Adjust the Y-axis pH scale

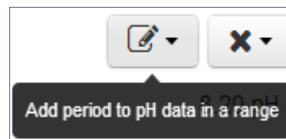
**NOTE: CHECK the diary entries before editing the pH Graph.
COMPARE THE EVENT GRAPH TO THE WRITTEN PATIENT DIARY ENTRIES.**

DataView v4 User Guide

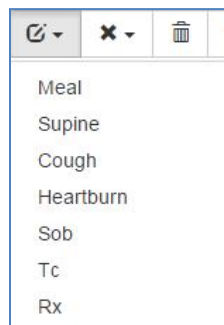
9.3.1 Add Event and Symptom Information

The Add button in the Graph toolbar allows the user to add Events and Symptoms to the Graph.

Hover the mouse over the Add button and the tooltip displays "Add period to pH data in a range."



Select a time range on the pH Graph using the click and drag function. Click the Add button. The Add button displays a dropdown menu containing a list of available Events and Symptoms. The last three Custom Symptoms will vary depending on the data set-up for each patient study.



If a meal is added to a selected range, a new meal marker will appear in the Event Graph.

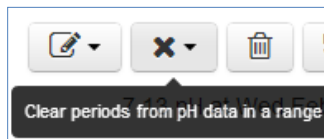


DataView v4 User Guide

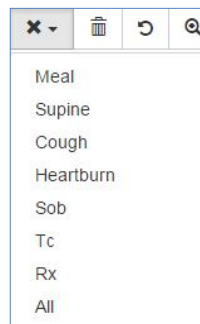
9.3.2 Remove Event and Symptom Information

The Remove button in the Graph toolbar allows the user to remove Events and Symptoms on the Graph.

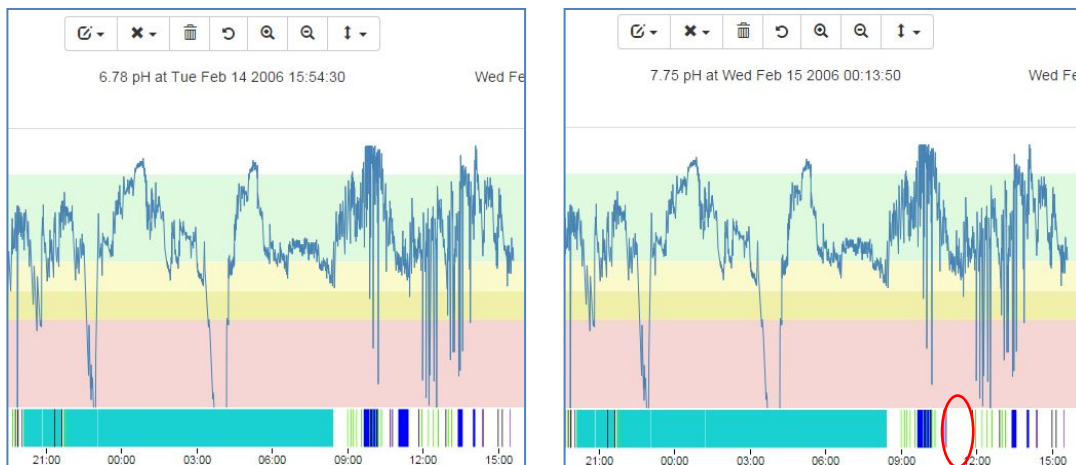
Hover the mouse over the Remove button and the tooltip displays "Clear periods from pH data in a range."



Select a time range on the pH Graph using the click and drag function. Click the Remove button. The Remove button displays a dropdown menu containing a list of available Events and Symptoms. The last three Custom Symptoms will vary depending on the data set-up for each patient study. Clicking "All" removes all Events and Symptoms.



If a meal is removed in a selected range, a meal marker will disappear in the Event Graph.

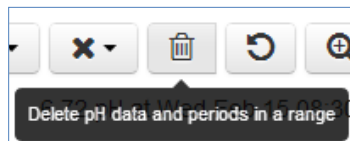


DataView v4 User Guide

9.3.3 Delete Event Information

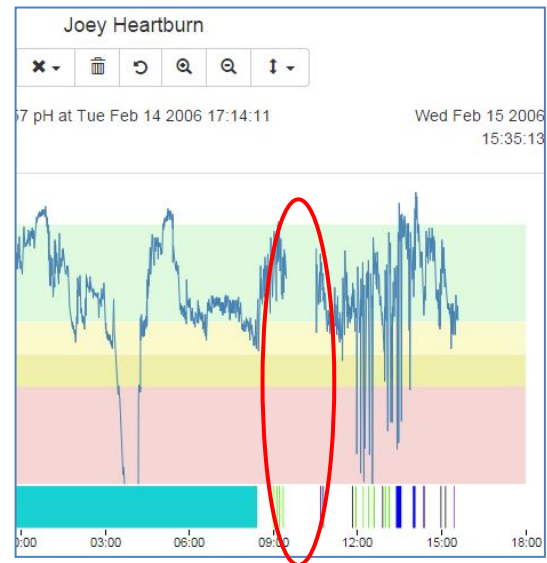
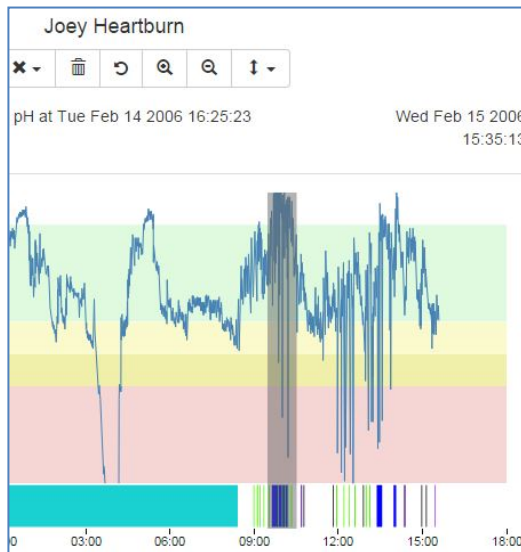
The Delete button in the Graph toolbar allows the user to delete pH data, Events, and Symptoms on the Graph.

Hover the mouse over the Delete button and the tooltip displays "Delete pH data and periods in a range."



Select a time range on the pH Graph using the click and drag function. Click the Delete button. The Delete button removes the pH data, Events, and Symptoms in the selected range completely.

If a time range that includes a meal period is deleted, all of the pH data, including the meal, is deleted completely.

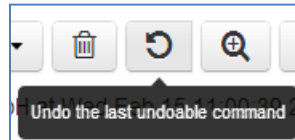


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9.3.4 Undo Changes

The Undo button in the Graph toolbar allows the user to undo commands in the Graph function.

Hover the mouse over the Undo button and the tooltip displays "Undo the last undoable command."

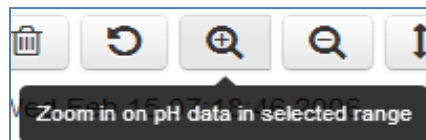


Click the Undo button. The Undo button reverts the last change made to its previous state. Click the Undo button multiple times in order to undo all the changes made during the current session.

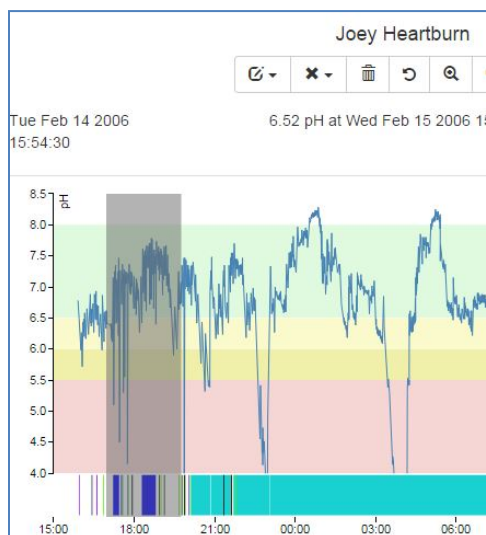
9.3.5 Zoom In

The Zoom In button in the Graph toolbar allows the user to view a magnified section of the Graph by expanding the X-axis.

Hover the mouse over the Zoom In button and the tooltip displays "Zoom in on pH data in a selected range."



Select a time range on the pH Graph using the click and drag function. Click the Zoom In button. The Zoom In button magnifies the pH Graph data of the selected range.

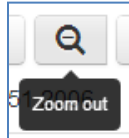


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9.3.6 Zoom Out

The Zoom Out button in the Graph toolbar allows the user to restore the graph display to the original time interval of the Graph.

Hover the mouse over the Zoom Out button and the tooltip displays "Zoom out."



Click the Zoom Out button. The Zoom Out button removes the pH Graph to its original display state.

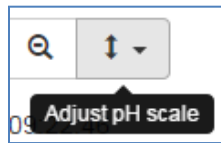


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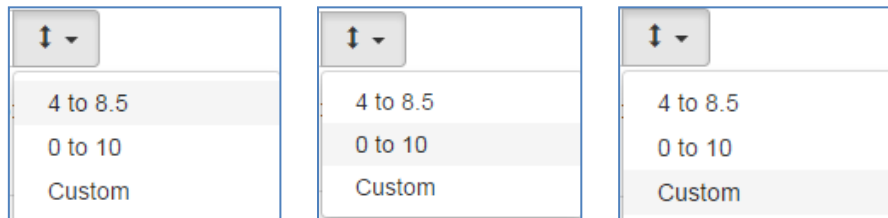
9.3.7 Y-Axis (pH Scale) Adjustment

The Y-Axis Adjustment button in the Graph toolbar allows the user to adjust the Y-Axis pH scale of the Graph.

Hover the mouse over the Y-Axis Adjustment button and the tooltip displays "Adjust pH scale."



Click the Y-Axis Adjustment button. The Y-Axis Adjustment button displays a dropdown menu containing a list of available pH ranges: 4 to 8.5, 0 to 10, and Custom.

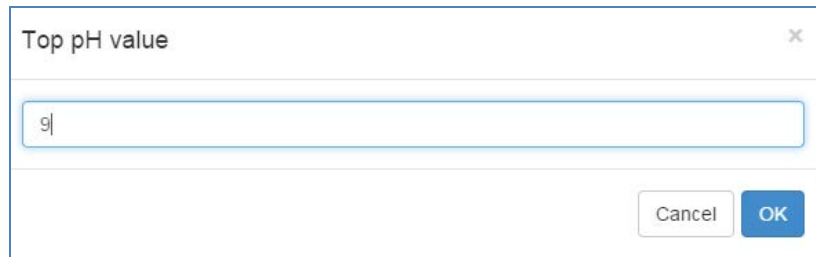


Select the 0 to 10 pH setting from the dropdown menu. The Graph Y-Axis changes to 0 to 10 pH.



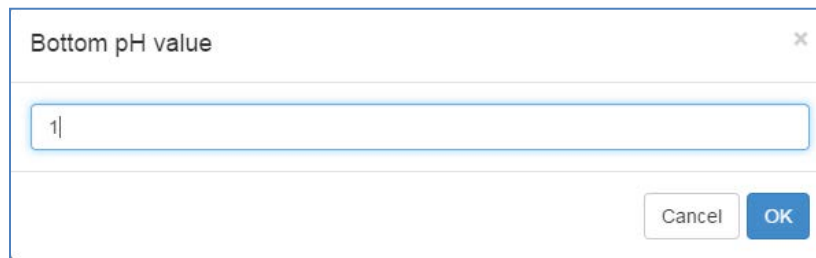
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Select the Custom pH setting from the dropdown menu. A Y-Axis Adjustment dialog box is displayed for entering the custom Top pH value. The number 9 is entered as an example here. Click "OK" to continue.



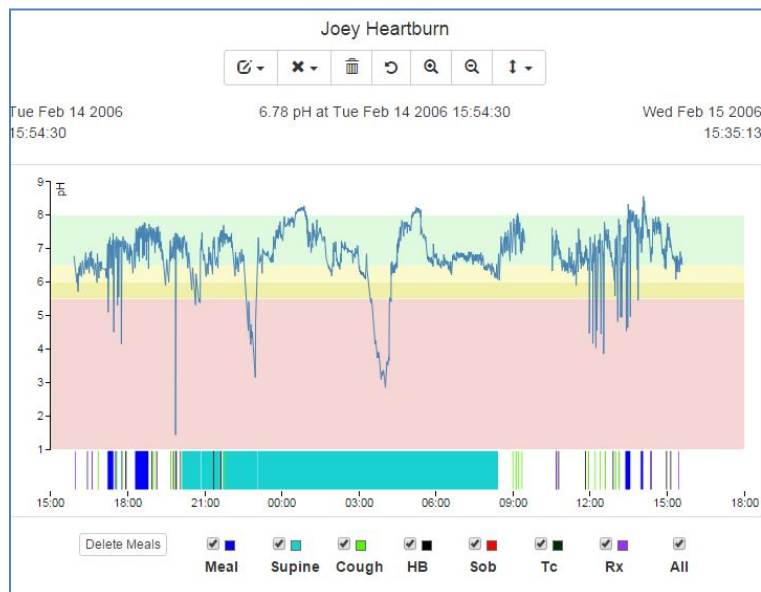
A dialog box titled "Top pH value" with a close button (X) in the top right corner. It contains a text input field with the number "9" entered. At the bottom right, there are two buttons: "Cancel" and "OK".

A Y-Axis Adjustment dialog box is displayed for entering the custom Bottom pH value. The number 1 is entered as an example here. Click "OK" to continue.



A dialog box titled "Bottom pH value" with a close button (X) in the top right corner. It contains a text input field with the number "1" entered. At the bottom right, there are two buttons: "Cancel" and "OK".

The Y-Axis Adjustment dialog box closes and the Y-Axis of the pH Graph changes to the new Y-Axis scale.



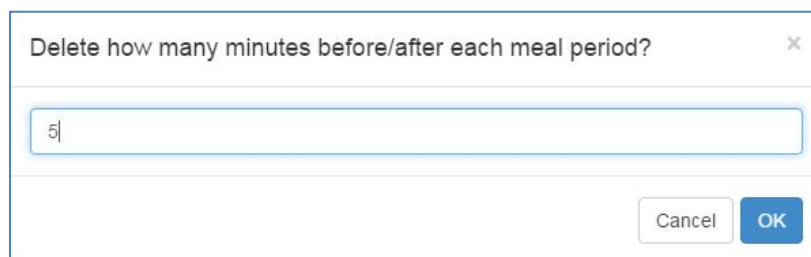
To return to the default Y-Axis, click the Y-Axis Adjustment button and select 4 to 8.5 in the dropdown menu.

9.3.8 Delete Meals

The Delete Meals button in the Graph Workspace allows the user to delete pH data associated with all meals on the pH Graph.

Clicking the Delete Meals button changes the calculations for the Event Calculations Table and RYAN Score, but do not remove the meal markers from the Event Graph.

Click the Delete Meals button. The 'Delete how many minutes before/after each meal period?' dialog box is displayed. The default number is 5 minutes, but the number may be changed in the field box. Click "OK" to continue.

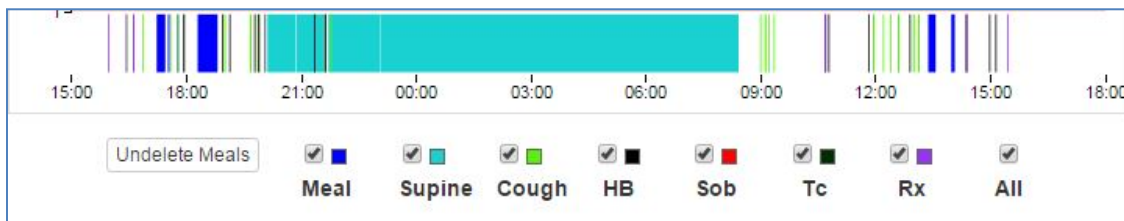


Delete how many minutes before/after each meal period?

5

Cancel OK

The Delete Meals button now displays "Undelete Meals" and the Event Graph still shows the meal events.



To confirm that meals have been deleted from the calculations, navigate to the Report Workspace and locate the center header. The Restech Information Block displays 'Meals Removed from Calculations.'



restech
Respiratory Technology Corporation

Indication
Antireflux Med.

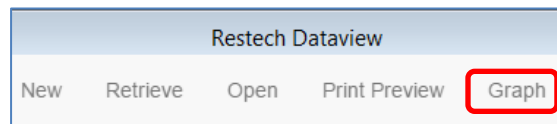
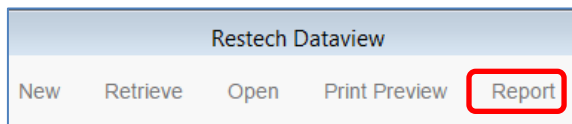
Study Duration 23:40:43

Meals Removed From Calculations

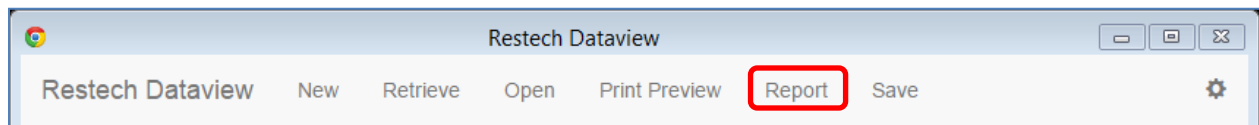
10. Main Navigation Menu Selection “Report”

10.1 View and Edit Reports

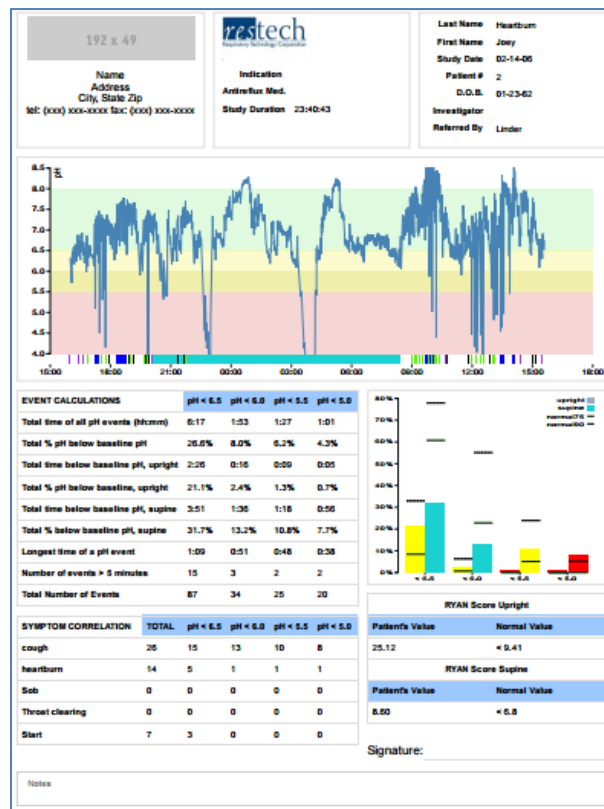
The "Graph" and "Report" Main Navigation Menu Selections allow the user to toggle between the Graph and Report Workspace.



The "Report" Main Navigation Menu Selection displays a representation of the patient study file in the Report Workspace.



The Report Workspace displays the Site Information, Restech Information, Patient Study Information, pH Study Graph, Acid Exposure Graph, Event Calculation Table, Symptom Calculation Table, RYAN Score, Notes field, and Signature field.

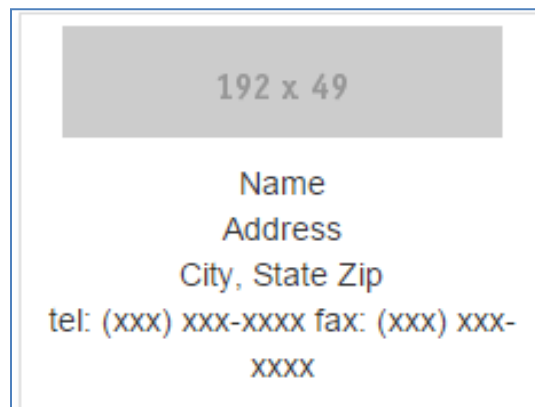


10.1.1 Site Information Block

The Site Information Block displays the site logo image and header in the upper left corner of the Report Workspace.

The user has the option to upload an image and edit site information in Settings. See Section 12.1.1 for instructions to edit and save site information.

Once a user has uploaded an image and edited site information in Settings, the changes will be saved on DataView until the software is uninstalled. The user may edit and overwrite site information saved in Settings.



The image shows a form for site information. At the top is a gray rectangular box labeled "192 x 49" for an image upload. Below this, the form contains the following text fields:

- Name
- Address
- City, State Zip
- tel: (xxx) xxx-xxxx fax: (xxx) xxx-xxxx

DataView v4 User Guide

10.1.2 Restech Information Block

The Restech Information Block displays the Restech logo image and header, patient indications and antireflux medication, and study duration in the upper middle section of the Report Workspace.



If meals have been deleted from the calculations, the Restech Information Block displays 'Meals Removed from Calculations.'



10.1.3 Patient Study Information Block

The Patient Study Information Block displays the Patient Details and Study Details inputs in the upper right corner of the Report Workspace.

Information in the Patient Study Information Block is saved from the "New" Main Navigation Menu Selection using the Patient Details Tab and Study Details Tab.

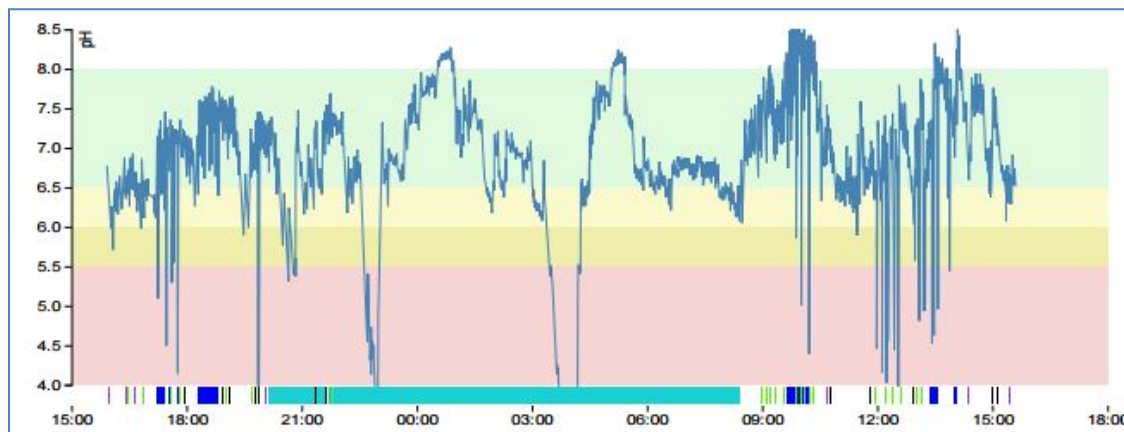
Last Name	Heartburn
First Name	Joey
Study Date	02-14-08
Patient #	2
D.O.B.	01-23-82
Investigator	
Referred By	Linder

10.1.4 pH Study Graph

The pH Study Graph displays a reduced scale replica of the pH Study Graph and Event Graph displayed on the Graph Workspace.

Unlike the pH Study Graph and Event Graph on the Graph Workspace, the pH Study Graph on the Report Workspace is not editable. Changes made on the Graph Workspace will automatically appear on the Report Workspace.

The Y-Axis of the pH Study Graph on the Graph Workspace determines the Y-Axis of the pH Study Graph on the Report Workspace.

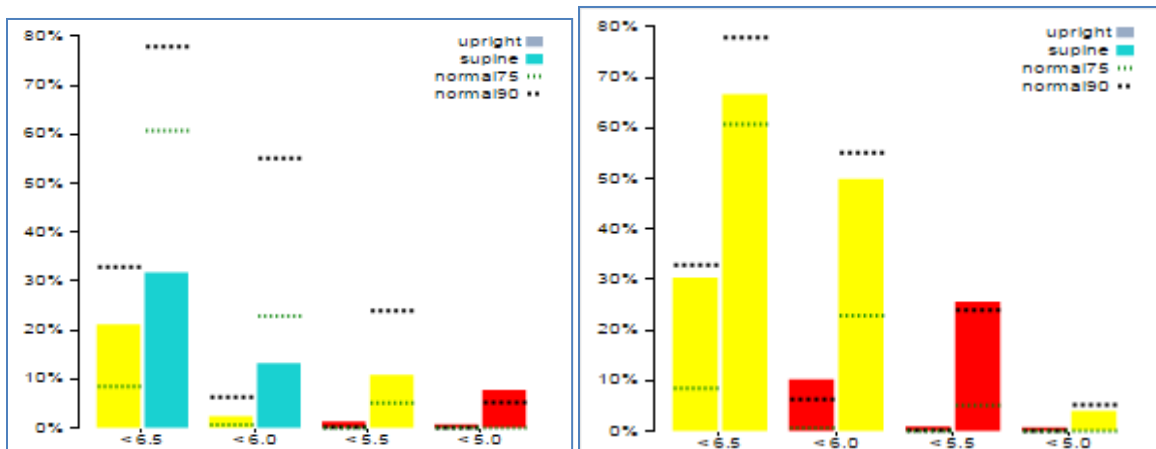


10.1.5 Acid Exposure Graph

The Acid Exposure Graph displays the total percentage of pH below each baseline in both the upright and supine positions. Horizontal dashed lines are marked for each baseline to indicate acid normal values in the 75th and 95th percentile.

When a patient's total percentage of pH below each baseline in the upright position does not exceed the acid normal values, the bar graph remains gray. When it exceeds the 75th percentile acid normal value, the bar graph in that baseline turns yellow. When it exceeds the 95th percentile acid normal value, the bar graph in that baseline turns red.

When a patient's total percentage of pH below each baseline in the supine position does not exceed the acid normal values, the bar graph remains teal. When it exceeds the 75th percentile acid normal value, the bar graph in that baseline turns yellow. When it exceeds the 95th percentile acid normal value, the bar graph in that baseline turns red.



The Y-Axis of the Acid Exposure Graph is fixed at 80% for all patients.

The X-Axis of the Acid Exposure Graph is fixed for each baseline.

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10.1.6 Event Calculations Table

The Event Calculations Table automatically calculates and displays events on the Report Workspace for each baseline in both the upright and supine position.

EVENT CALCULATIONS	pH < 6.5	pH < 6.0	pH < 5.5	pH < 5.0
Total time of all pH events (hh:mm)	6:20	1:54	1:28	1:01
Total % pH below baseline pH	26.8%	8.0%	6.2%	4.3%
Total time below baseline pH, upright	2:28	0:17	0:09	0:05
Total % pH below baseline, upright	21.5%	2.5%	1.4%	0.8%
Total time below baseline pH, supine	3:52	1:36	1:18	0:56
Total % below baseline pH, supine	31.8%	13.3%	10.8%	7.7%
Longest time of a pH event	1:09	0:51	0:48	0:38
Number of events > 5 minutes	15	3	2	2
Total Number of Events	85	34	25	20

Clicking the 'Delete Meals' button on the Graph Workspace completely deletes all pH data in the selected range before and after meals, thus changing the calculations presented in the Event Calculation Table.

10.1.7 Symptom Correlation Table

The Symptom Correlation Table automatically calculates and displays symptoms on the Report Workspace for each baseline in both the upright and supine position.

SYMPTOM CORRELATION	TOTAL	pH < 6.5	pH < 6.0	pH < 5.5	pH < 5.0
cough	26	15	13	10	8
heartburn	14	5	1	1	1
Sob	0	0	0	0	0
Throat clearing	0	0	0	0	0
Start	7	3	0	0	0

Clicking the 'Delete Meals' button on the Graph Workspace completely deletes all pH data in the selected range before and after meals, thus changing the calculations presented in the Symptom Correlation Table. The last three Custom Symptoms will vary depending on the data set-up for each patient study.

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10.1.8 RYAN Score Table

The RYAN Score Table displays a score for both the upright and supine positions. The RYAN Score published values are displayed as normal values.

RYAN Score Upright	
Patient's Value	Normal Value
25.14	< 9.41
RYAN Score Supine	
Patient's Value	Normal Value
8.61	< 6.8

10.1.9 Notes

The Notes field displays an editable text box that allows the user to directly type in notes. The notes will also be displayed on the printed Report.

Notes

This is a test of data entry into the Notes field for DataView v4 software.

10.1.10 Signature

The Signature field allows the user to manually enter a signature on the printed Report. The signature field will appear blank on the Report Workspace.

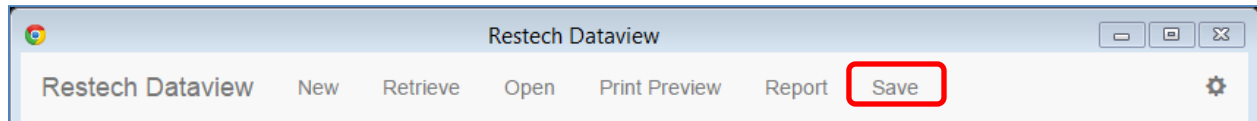
A signature cannot be directly inputted from the Report Workspace.

Signature: _____

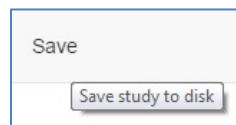
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11. Main Navigation Menu Selection "Save"

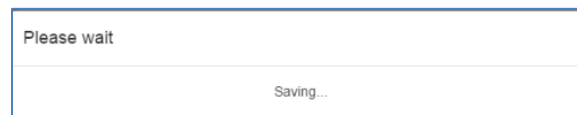
The "Save" Main Navigation Menu Selection allows the user to save a modified version of the patient study. A patient study retrieved from a RESTECH formatted SD card will automatically be saved, and the user does not need to click "Save." A patient study retrieved from the "Load a file from disk" button will not be automatically saved unless "Save" is clicked.



Hover the mouse over the "Save" Main Navigation Menu Selection and the tooltip displays "Save study to disk."



To save a modified study, click the "Save" Main Navigation Menu. The 'Please wait Saving' box is displayed.



Once the modified study is saved to the computer, the 'Please wait Saving' box disappears and the DataView Workspace is displayed.

To verify that a modified study has been saved, use Windows File Explorer to navigate to C:\Restech\Dataview\data. The patient's name will be saved with modified. The original unmodified patient study will still be saved in the C: drive.

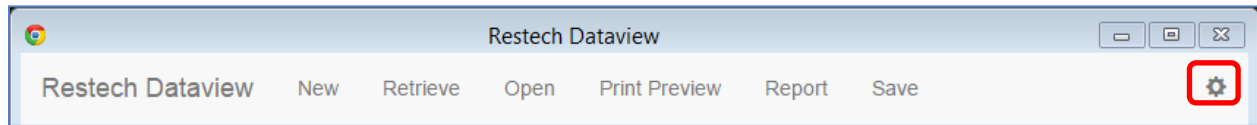
To open either of these patient study files on the DataView Workspace, click the "Open" Main Navigation Menu and select the patient study from the Open Study dialog box.

If the user clicks the "Save" Main Navigation Menu without making any changes to the patient study, an identical copy of the patient study will be saved in the C: drive as modified.

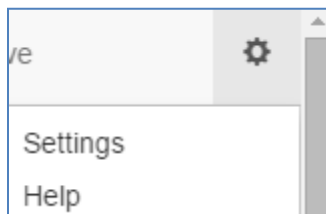
12. Main Navigation Menu Selection "Settings"

12.1 Settings

The "Settings" Main Navigation Menu Selection provides users with submenu items.



Click the "Settings" Main Navigation Menu. The settings menu displays a dropdown menu with the submenu items: 'Settings' and 'Help.'

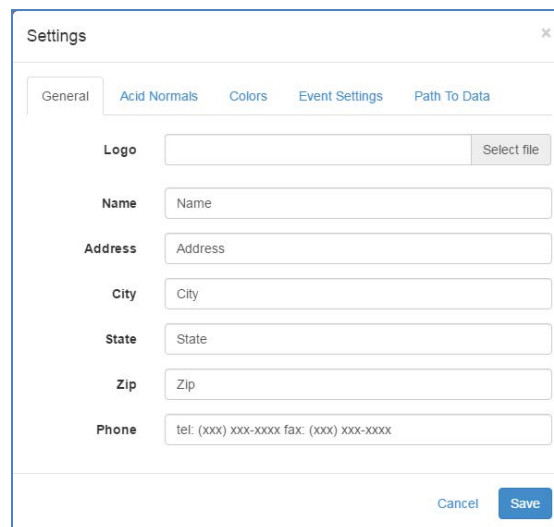


12.1.1 General Tab

Click on the 'Settings' submenu item to open the Settings dialog box. The first tab displays General input fields.

Click in the field boxes to input Site Information data according to the available input fields.

The first field box allows the user to upload an image logo.

A screenshot of the Settings dialog box. The title bar says 'Settings'. There are five tabs: 'General', 'Acid Normals', 'Colors', 'Event Settings', and 'Path To Data'. The 'General' tab is selected. It contains several input fields: 'Logo' with a 'Select file' button, 'Name', 'Address', 'City', 'State', 'Zip', and 'Phone'. The 'Phone' field has a placeholder text 'tel: (xxx) xxx-xxxx fax: (xxx) xxx-xxxx'. At the bottom right, there are 'Cancel' and 'Save' buttons.

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Information inserted into the General Tab will appear on the Site Information Block in the upper left corner of the Report Workspace.

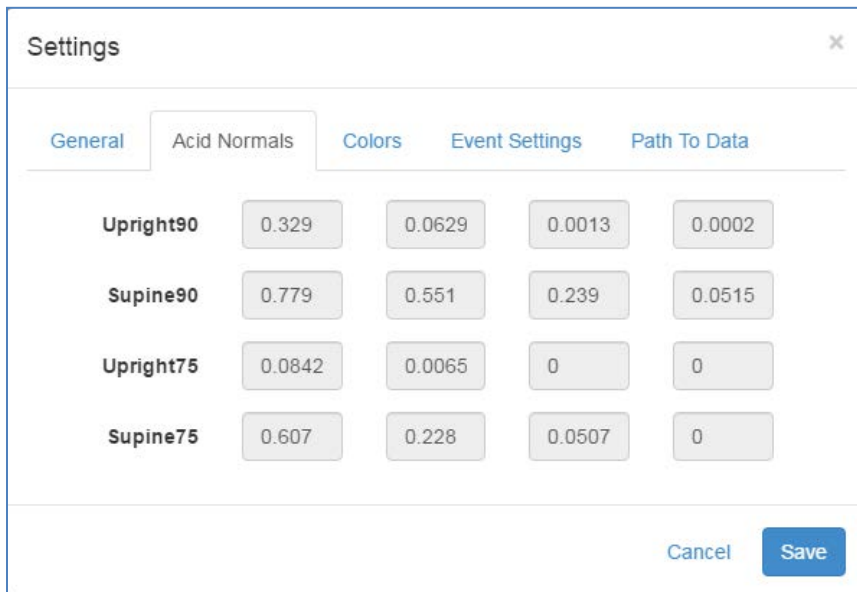


A rectangular box representing a site information block. At the top is a grey rectangle with the text "192 x 49". Below it, the following text is centered: "Name", "Address", "City, State Zip", "tel: (xxx) xxx-xxxx fax: (xxx) xxx-xxxx", and "xxxx".

Once a user has uploaded an image and edited Site Information in Settings, the changes will be saved on DataView until the software is uninstalled. The user may edit and overwrite Site Information by returning to the General Tab.

12.1.2 Acid Normals

Click on the 'Settings' submenu item to open the Settings dialog box. The second tab displays Acid Normals. This is the measurement of Pharyngeal pH with 90th and 75th percentile in upright and supine. These values can't be edited by the user.



The Settings dialog box is shown with the 'Acid Normals' tab selected. The dialog has a title bar 'Settings' with a close button 'x'. Below the title bar are five tabs: 'General', 'Acid Normals', 'Colors', 'Event Settings', and 'Path To Data'. The 'Acid Normals' tab contains a table of values for Upright90, Supine90, Upright75, and Supine75. At the bottom right are 'Cancel' and 'Save' buttons.

	0.329	0.0629	0.0013	0.0002
Upright90	0.329	0.0629	0.0013	0.0002
Supine90	0.779	0.551	0.239	0.0515
Upright75	0.0842	0.0065	0	0
Supine75	0.607	0.228	0.0507	0

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12.1.3 Colors Tab

Click on the 'Settings' submenu item to open the Settings dialog box. The third tab displays Colors input fields.

These values may be edited by the user by clicking in the field box and typing in new values.

Once a user has edited the Colors in Settings, the changes will be saved on DataView until the software is uninstalled. The user may edit and overwrite the Colors by returning to the Colors Tab. Also, the user can return to the default colors by selecting Load Default Colors.

Category	Color Swatch	Hex Code
Normal		#bfff5bf
Mild		#f5f598
Moderate		#e0e055
Severe		#edacab
Meal		#0000ff
Supine		#19d1d1
Cough		#55f505
Heartburn		#000000
Symptom 1		#ff0000
Symptom 2		#002e00
Symptom 3		#9b30ff

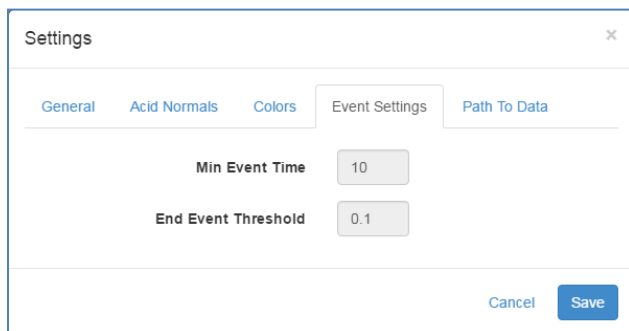
These Colors represent the pH Graph, event markers, and symptom markers on both the Graph Workspace and the Report Workspace.

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12.1.4 Event Settings

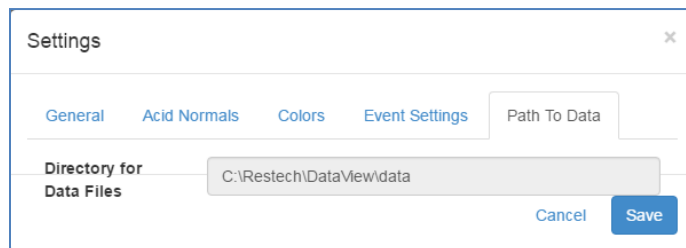
Click on the 'Settings' submenu item to open the Settings dialog box. The fourth tab displays Event Settings.

The Default Min Event Time is 10 seconds and End Event Threshold is 0.1 pH. These values can't be edited by the user.



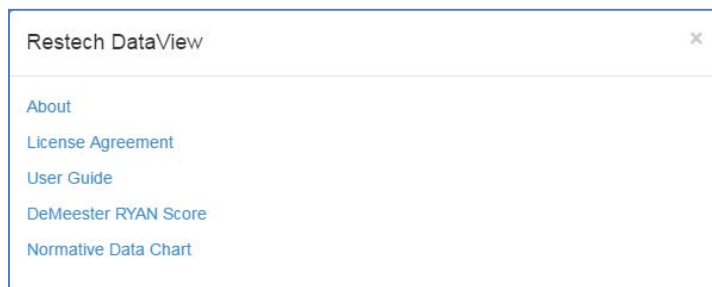
12.1.5 Path to Data

Click on the 'Settings' submenu item to open the Settings dialog box. The fifth tab displays Path to Data. Displays the Location where the user saves their files for reports and graphs. The location can't be edited by the user.



12.2 Help

The 'Help' submenu item displays DataView's About, License Agreement, User Guide, DeMeester RYAN Score article, and Normative Data Chart.



Click anywhere outside of the menu field to exit the 'Help' submenu.

13. Uninstalling DataView v4 Software

The DataView software may be uninstalled through the Chrome App Store in combination with deleting accessory Restech folders on the C: drive.

1	Right click on the DataView App Icon to unpin the program from the Taskbar and to remove the shortcut from the Desktop. If Chrome App Launcher is installed, right click on the Restech DataView App and click "Uninstall."
2	Open Chrome and type "chrome://extensions" into the address bar.
3	Locate the Restech Dataview Chrome App in the list of extensions and click the trashcan icon to remove the app extension.
4	From the Windows Desktop, navigate to the C: drive by clicking the Start Menu and then Computer. Right click on the Restech folder and select Delete.
5	Navigate to the Program Files (x86) folder. Right click on the Restech folder and select Delete.
6	The Restech Dataview Chrome App and DataView program files are successfully removed from the computer.

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For technical support, please call 800-352-1512 (US Customers) or +1 (858) 673-3700 (International Customers) and ask to speak with a technical support specialist. After hours, select option 7 to be transferred to an on-call support person.