# ViPer User Manual

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ViPer enables you to visualize your environmental sensor data. Though you can configure each profiler to output a maximum of 25 sensor values, the list of possible sensor values is much longer. ViPer supports them all!

In ViPer, choose from your output values and view them in profile, gradient graphical visualizations or in the spreadsheet window.

ViPer displays are fully customizable; you can configure one or more windows to show exactly what you need. For each graphical window, choose the data to display in profile or gradient view. The depth indicator shows the depth at which the data currently displays, and all data appears in the spreadsheet window.

Use the same display configuration to monitor multiple stations or run multiple instances of ViPer and configure each differently.

You can manually capture the current display to JPG image files or automatically export the same display at timed intervals to a Web page, providing remote viewing of the latest data.

**FIGURE 1.** *ViPer Interface*
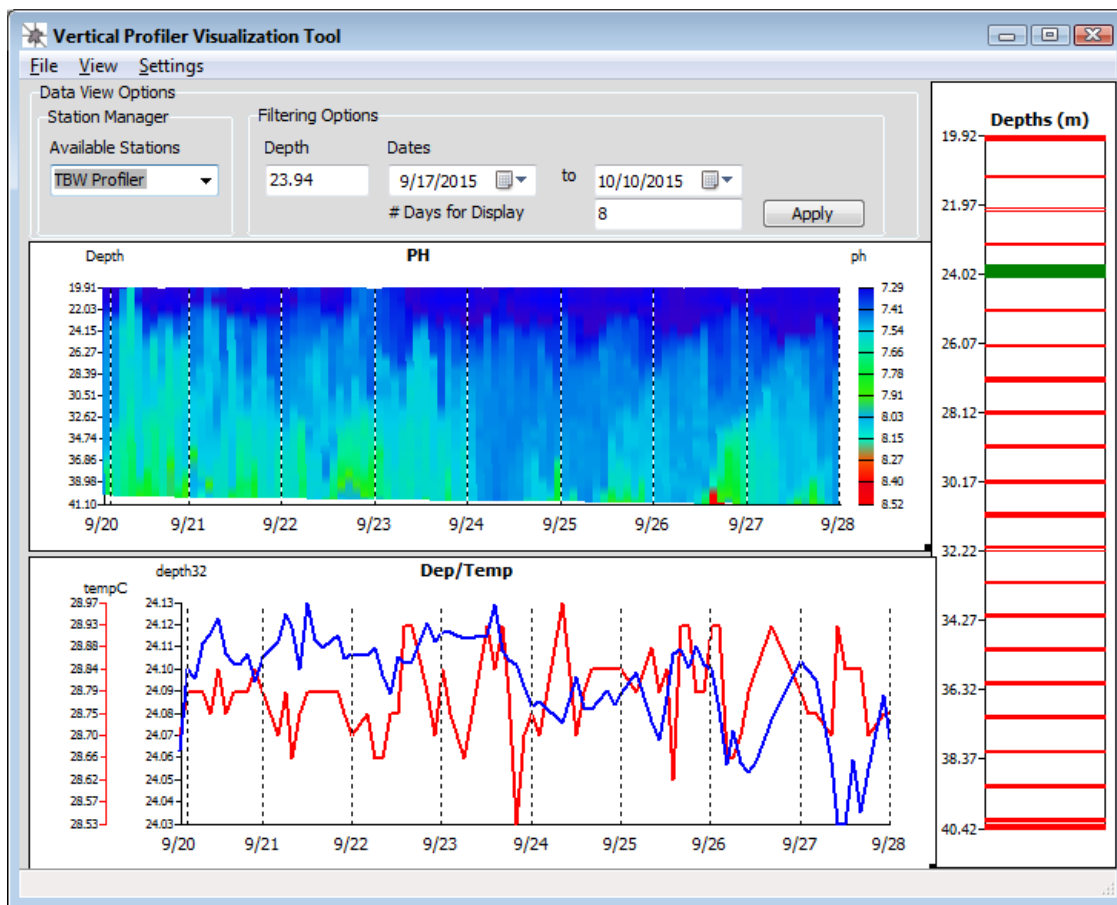
# *INSTALLING THE VIPER SOFTWARE*

The ViPer software installs, by default, in the C:\Program File (x86)\YSI\ViPer folder and provides desktop and Start menu shortcuts for easy startup.

ViPer also requires a valid ViPer dongle on your computer. Dongles are USB devices, encoded with your license information.

# *INSTALLING YOUR VIPER LICENSE*

A dongle is required to activate the ViPer program.

The **License Manager** reads and displays your license information from the dongle. It is also where you use the HYPACK license file (*.LIC) to update your dongle with current license information.

HYPACK dongles have the following features:

- **Programmable expiration date:** The dongles will be burned with the your subscription term end date. After this date, the dongle will not allow you to run ViPer until your license is renewed.

- **Allows renewal over the Internet:** Beginning 30 days before your subscription expires, ViPer notifies you each time you launch the software, and you must contact HYPACK to arrange for a subscription renewal.

  When your subscription is renewed, HYPACK will email you a license file which is used to update your dongle information.

All of these functions will be managed through the LICENSE MANAGER.

**To install your license file**, do the following:

1. **Save the license file** on your computer.
2. **Connect the key to your computer.**
3. **Start the HYPACK LICENSE MANAGER program** from the Windows® Start menu. Select START - ALL PROGRAMS - YSI - LICENSE MANAGER.
4. **Click [Load License File], browse to select the license file and click [Open].**
5. **Click [Update Key].** The LICENSE MANAGER updates your key with the new license information.

# RUNNING VIPER

ViPer displays data from only one station at a time, but you may run multiple instances of ViPer simultaneously to monitor multiple stations.

**For each station you wish to monitor**, to the following:

1. **Launch the program (VertProfiler.exe):** Double-click the desktop icon or select the ViPer option from the Start menu. Initially the Station Manager and Filtering Options are blank. These are populated only after loading at least one station.
2. **Define your visualizations**. ("Visualizations".)
3. **Add the stations to each visualizations**. ("Adding a Station to a Visualization File".)

   **FIGURE 2.** *ViPer Shell*
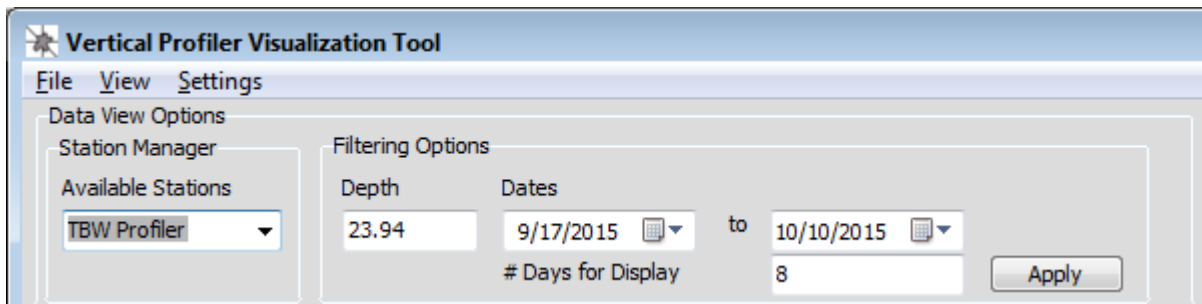


4. **Save the visualization file.** Select FILE-SAVE BUO and name your file. You may create a new BUO file or overwrite an existing one.

   **The visualization (\*.BUO) file** includes the stations and visualization windows. In later ViPer sessions, you can quickly and easily reload the preconfigured visualization by loading the BUO file.
5. **Export your current visualization for remote viewing.** (Optional "Exporting ViPer Visualization Displays".)

# STATIONS

A station is a single vertical profiler. The station name is determined in the profiler configuration and prepended to each data file name during data acquisition (eg. *StationName*_DFinder.DAT) by Loggernet.

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**IMPORTANT:** When you configure your station name in the profiler, it can include *no underscore characters.*

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In ViPer, the station information includes the station name and its data file location.

**To view the station data**, you must add it to a new or existing visualization. (["Visualizations".](#))

# ADDING A STATION TO A VISUALIZATION FILE

The first step to make a new visualization file is to add a station from which you want to view the data. Additionally, when you want to view data from additional stations using existing visualization settings, just add the station to the visualization file and save it. (The number of stations that can be supported in a visualization is unlimited.) You can then select the station for the current display in the Available Stations list.

1. **If you want to add a station to an existing visualization, open the visualization file. (**Otherwise, skip this step.) Select FILE-LOAD BUO, select the correct file and click [Open].
2. **Select FILE-ADD STATION.** The Add Station dialog appears:

   *FIGURE 3. Add Station Dialog*
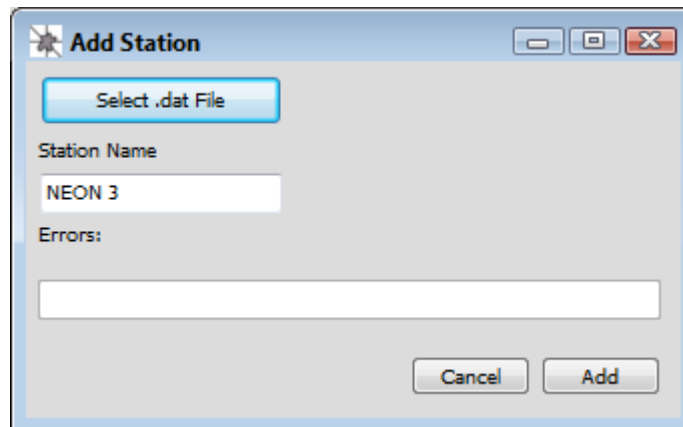


3. **Click [Select .dat File] and select *any* data file from the new station.** The program reads the station name from the selected file and automatically enters it in the Add Station dialog.
4. **Click [Add].**
5. **Save the visualization file.** Select FILE-SAVE BUO and name your file. You may create a new BUO file or overwrite an existing one.

# REMOVING A STATION FROM A VISUALIZATION

**To remove a station from the Available Stations list**, do the following:

1. In the ViPer interface, **select the station you want to remove**.
2. **Select FILE-DELETE CURRENT STATION.**
3. **Save the visualization file.** Select FILE-SAVE BUO and name your file. You may create a new BUO file or overwrite an existing one.

# *VISUALIZATIONS*

Visualization files (*.BUO) include the configurations for one or more visualization windows and the stations associated with the visualization display. You can save only one set of visualization windows and settings in a visualization file; however, the number of visualization files is unlimited.

Once a visualization display is defined, you can add more stations and select the station for the current display in the Available Stations list.

In later ViPer sessions, you can quickly and easily recall a display by loading the required BUO file and selecting the desired station.

**Create a new visualization file** as follows:

1. **Add the first station**. ("Adding a Station to a Visualization File".)
2. **Set the filter options.** ("Filter Options".)
3. **Create the visualization windows**. ("Creating a Visualization Window".)
4. **Save the visualization file.** Select FILE-SAVE BUO and name your file. You may create a new BUO file or overwrite an existing one.

# CREATING A VISUALIZATION WINDOW

You can configure ViPer to display one or more graphs of your data, each in a visualization window. When you have multiple visualization windows, they display synchronized time ranges.

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**NOTE:** ViPer generates each new visualization window at the upper left corner of the display area. *If you create multiple*

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*windows, they overlay each other*; you must reposition and resize them in the visualization display to see them all.

**Configure each graph as follows:**

1. **Select FILE-ADD VISUALIZATION.** The Add Visualization dialog appears:
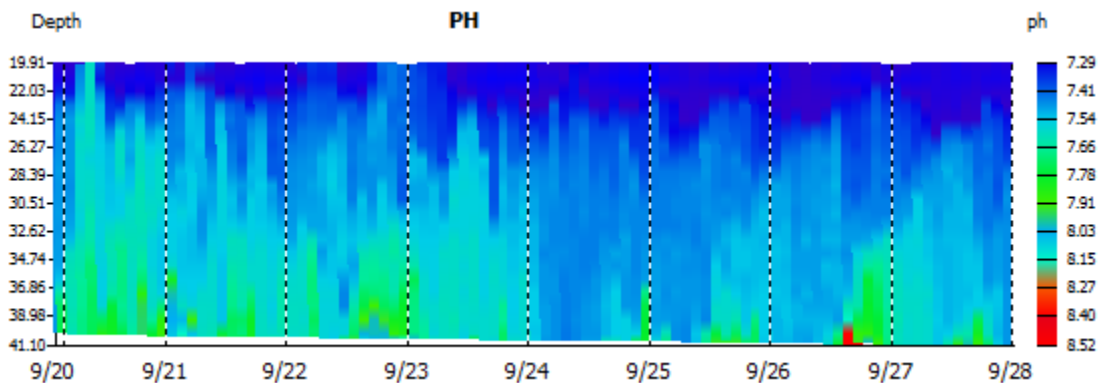
**FIGURE 4.** *Visualization Options*
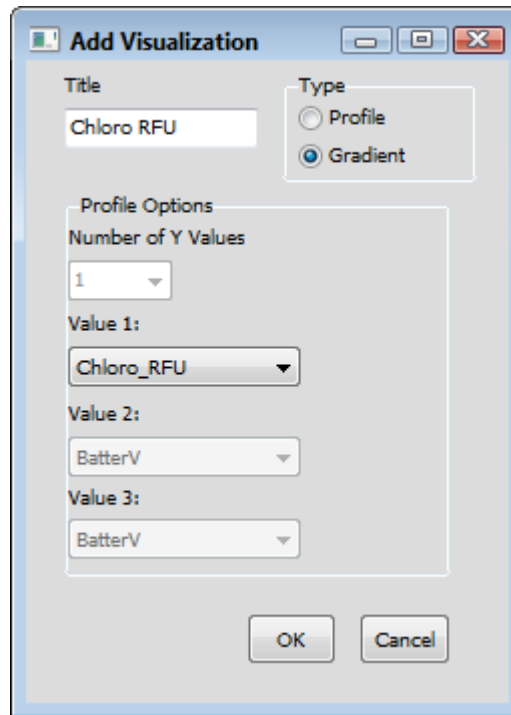


2. **Select your options.**

   **Title**: Name the display window.

   **Type**: Choose whether it's Profile or Gradient view.

   **Profile Options:**

   - **Profile windows** are linear graphs that can compare up to three data types in one window. Set the number of values and which values to graph.

*FIGURE 5.* *Sample Profile Window*
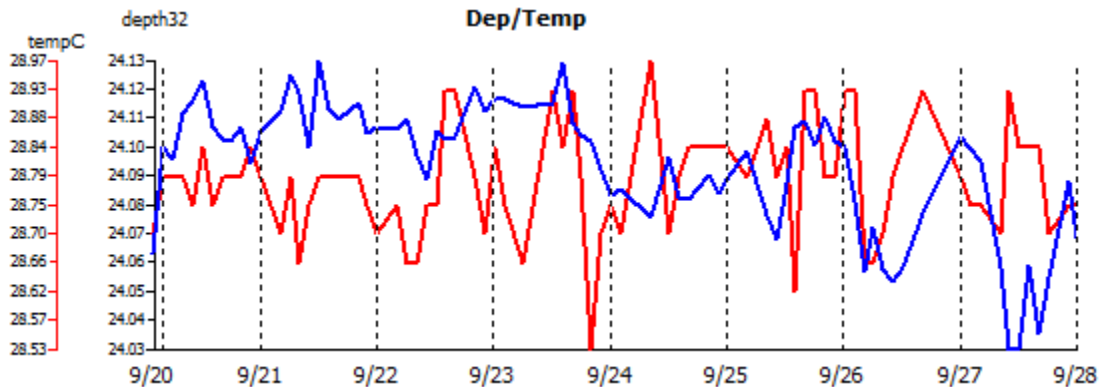


- For **Gradient displays**, select the value to graph.

*FIGURE 6.* *Sample Gradient Window*



3. **Check your options and click [OK].**

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NOTE: There is no option to edit the display options at this time. To correct a configuration or misspelling, delete the visualization window and recreate it.

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4. **Resize and position your window as necessary.**
   - **To resize**, click and drag the handle on the bottom right corner.
   - **To reposition the window** in your display, click and drag the window.
   - **To increase and decrease the number of days** change the # of Days for Display option or use your mouse wheel.
   - **To shift the time range displayed**, click and drag in a visualization window.

5. **Save the visualization file.** (Recommended) Select FILE-SAVE BUO and name your file. You may create a new BUO file or overwrite an existing one.
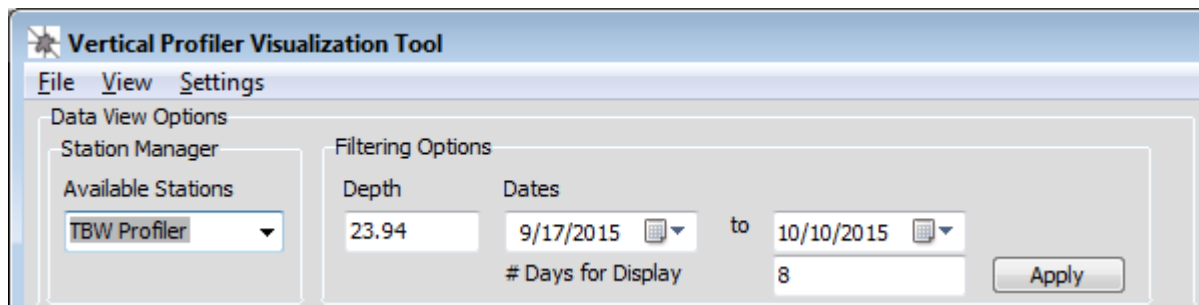
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NOTE: You can save your visualization incrementally as you create your windows, or when you have completed configuring your full display.

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**To remove a graph from the visualization display**, right-click on the window and select Delete.

# FILTER OPTIONS

Filter options limit the amount of data ViPer reads from the DAT file.

FIGURE 7. *Filtering Options*



**Depth:** Indicates the depth at which the data currently displays. The same depth appears in green in the depth indicator on the right side of the interface.

*FIGURE 8. Depth Indicator*

*Tip:* **To quickly change the display depth**, click on the red line at the desired depth in the depth indicator.

**Dates:** Enter the date range of interest. Data outside the defined range is omitted from the visualization.

**Number of Days for the Display:** Number of days drawn at once.

- **To increase and decrease the number of days** using this option or your mouse wheel.
- **To shift the time range displayed**, click and drag in the graph.
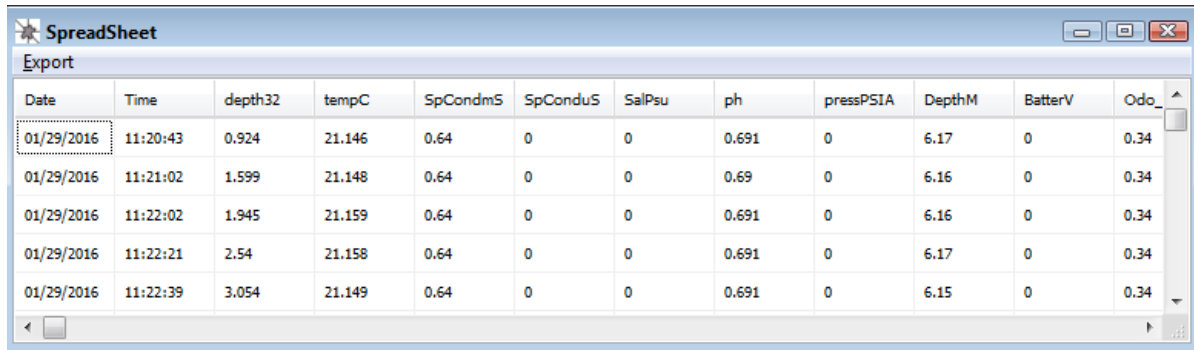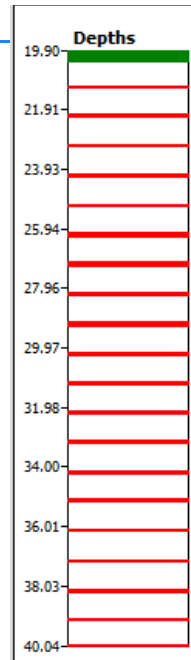
# SPREADSHEET DISPLAY

The ViPer Spreadsheet display shows all of the available data in a simple spreadsheet. It is not configurable.

**To display the spreadsheet**, select VIEW-SPREADSHEET.

NOTE: The spreadsheet is separate from the visualization display and is not included in exported HTML files.

*Tip:* It is possible that the Spreadsheet window can become hidden behind the ViPer visualization window. Use the Windows® Alt + Tab combination to bring it into view, then relocate it on your screen away from the visualization displays.

You can **export the spreadsheet data**, with or without the column titles, to comma separated files:

1. **Select your export option from the menu** in the Spreadsheet window.

2. **Name your file and click [Save].** The exported file is saved as a text file. The File Save dialog defaults to the station data location, but you may set an alternate location.

# EXPORTING VIPER VISUALIZATION DISPLAYS

ViPer can automatically send screen captures of the current visualization display, in HTML and JPG formats, to a user-defined folder.

**IMPORTANT:** The visualization must be visible on screen. ViPer cannot generate screen captures from minimized windows.

You can use the exported HTML files to provide remote viewing of your current data in a browser or incorporate them into a Web page.

**NOTE:** Each export overwrites the previous output file, maintaining *only the latest display*.

1. **Select SETTINGS-HTML OUTPUT**. The HTML Output dialog appears.
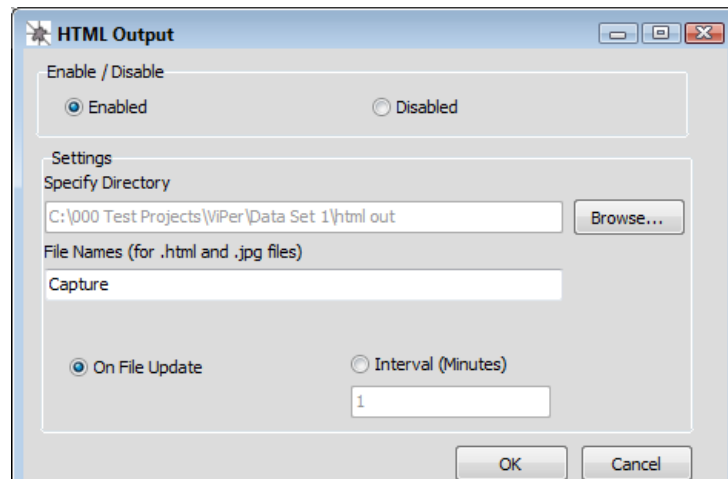
2.  **Configure the output options:**
    - **Enabled/Disabled:** These options control whether ViPer exports the HTML and JPG screen captures.
    - **Specify Directory:** Click [Browse] and select the folder for your output files.
    - **File Names:** Enter the file name for the output HTML and corresponding JPG files. (The default is "Capture".)
    - **Output frequency:** On **File Update** exports the HTML and JPG files each time your station updates (set at the station). Otherwise, select **Intervals**, and enter your output frequency in minutes.

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    **IMPORTANT:**  If you are remotely monitoring multiple stations using multiple instances of ViPer, use different output directories, file names, or both to avoid one instance of ViPer overwriting the output files from the other.

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3.  **Click [OK].** ViPer exports the current display, then waits for the next update according to your output configuration options.

**FIGURE 11.** *Sample HTML Display*