

# Datalist / Snapshot Operator's Manual

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2nd Edition: January, 2004

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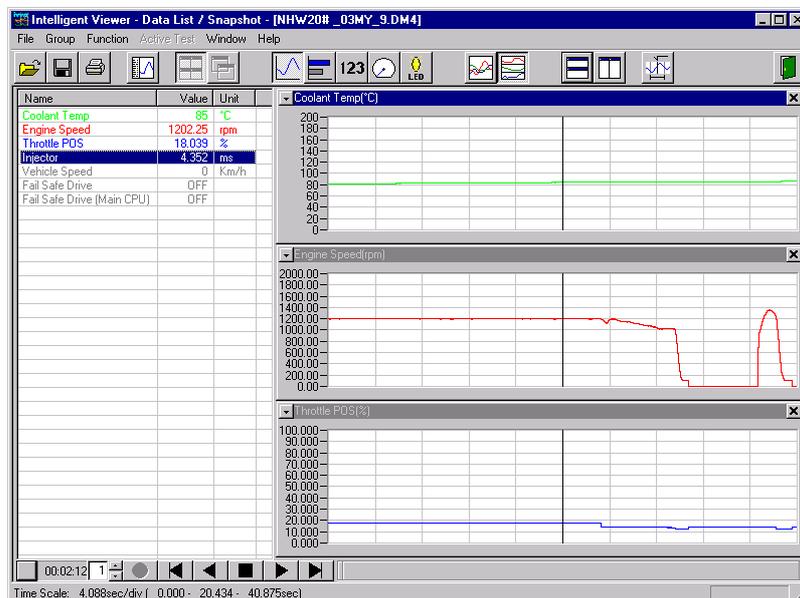
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# 1. Outline of Datalist / Snapshot

With Datalist / Snapshot, you can use a PC to display and print Intelligent Tester II measured vehicle ECU data in multiple formats. Therefore, you can perform data processing operations, such as advanced analysis of data or preparation of reports, in a more efficient manner.

- You can transfer data files from Intelligent Tester II to a PC.
- You can display and print the data file stored in PC.
- Direct access to data files stored on Intelligent Tester II will be available with a PC, making it possible to display and print the data.
- You can use a wide variety of representation methods (line graph, bar graph, numeric data, meter, LED).
- Main functions can be executed with their toolbar buttons at the top of the graph display screen, which enhance user-friendliness.
- In particular, in-line graph display analysis functions have been substantially upgraded.



**Note: Data collected with Intelligent Tester II (previous system) cannot be used with Datalist / Snapshot.**

## 2. Setup

This section describes how to connect Intelligent Tester II to a PC.

This will make it possible to use the Datalist / Snapshot program to make more detailed analyses of data stored on Intelligent Tester II.

### 1 Connect Intelligent Tester II to the PC.

Connect Intelligent Tester II to the AC/DC adapter.

(If the internal battery is fully charged, you can perform these operations without connecting the AC/DC adapter.)

Bring a suitable USB Cable. Connect one end of the cable to the USB port of Intelligent Tester II and the other to one of the USB ports on the PC.

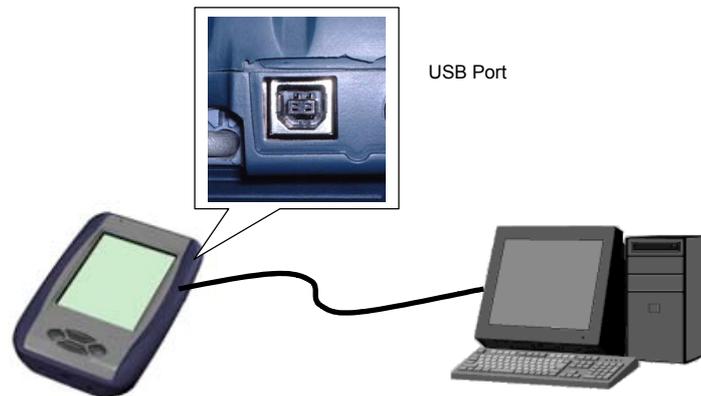


Fig. 2-1: Intelligent Tester II - PC Connection

**Note:** You will need to install the USB driver for Intelligent Tester II before you can use USB communications.

### 3. Datalist / Snapshot Startup Method

This section describes how to start the Datalist / Snapshot program.

- 1 Start the Intelligent Viewer program and click the  button to activate Datalist / Snapshot.



Fig. 3-1: Intelligent Viewer Program

- 2 Datalist / Snapshot main screen appears.

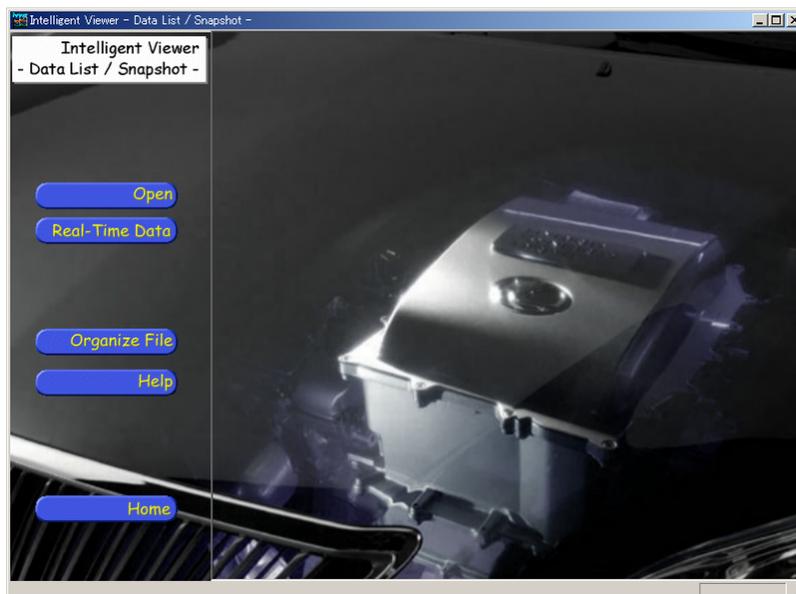


Fig. 3-2: Datalist / Snapshot Main Screen

## 4. Datalist / Snapshot Menu

This menu is used to execute functions available with Datalist / Snapshot.

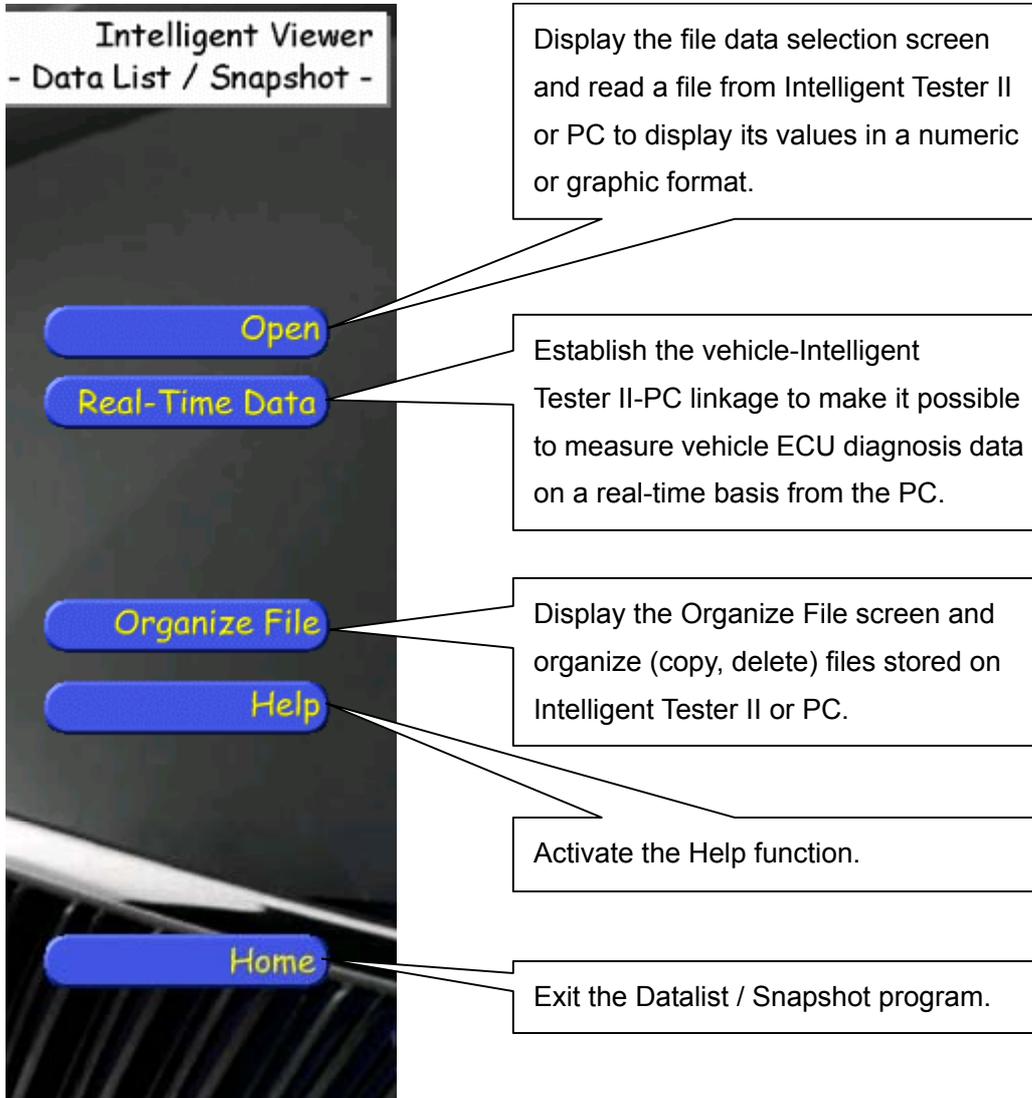


Fig. 4-1: Datalist / Snapshot Menu

## 5. ECU Data Monitoring

You can use the file data function to display measurement data files stored on Intelligent Tester II or PC with a wide variety of representation methods such as graphic and numeric.

### 5.1. File data selection

- 1 Select a file.

Click the  button in the Datalist / Snapshot menu area to display the file data selection screen.

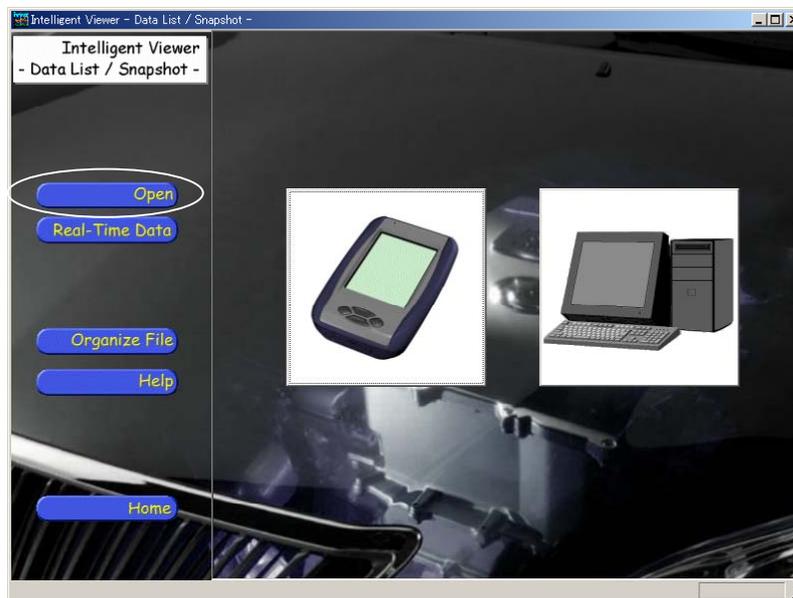
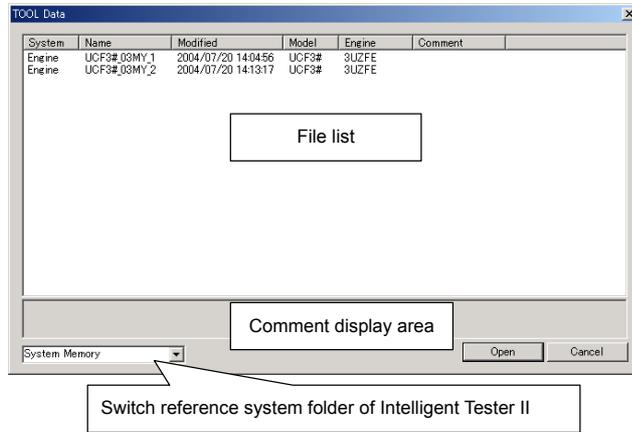


Fig. 5-1-1: File Data Selection Screen

**2-1 Display file data saved in Intelligent Tester II**

Click the Intelligent Tester II button to display the file selection dialog box.



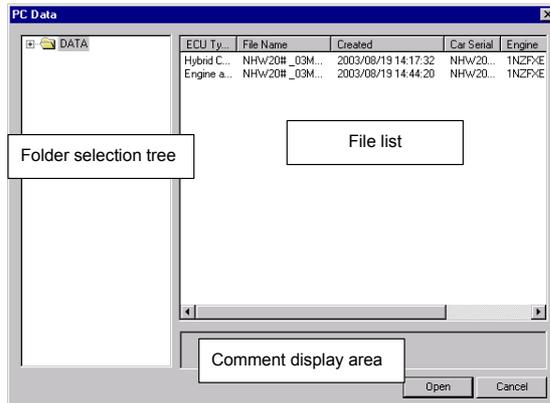
**Fig. 5-1-2: Intelligent Tester II Button**      **Fig. 5-1-3: Intelligent Tester II File Selection Dialog Box**

Select the desired file from the Intelligent Tester II file selection dialog list and then click the Open button.

You can switch the Intelligent Tester II reference system folder to either "System Memory" (built-in CF) or "Storage Card" (external CF) from the list box at the bottom left of the dialog box.

**2-2 Display file data stored on the PC.**

Click the PC button to display the file selection dialog box.



**Fig. 5-1-4: PC Button**      **Fig. 5-1-5: PC File Selection Dialog Box**

Select the desired file from the PC file selection dialog list and then click the Open button.

The comment on the selected file is displayed in the comment display area.

## 5.2. Double-click data file

Double-click directly on the measurement data file to display it by Datalist / Snapshot.

### 1 Display the file.

Display the ECU data file using an application such as Windows Explorer.

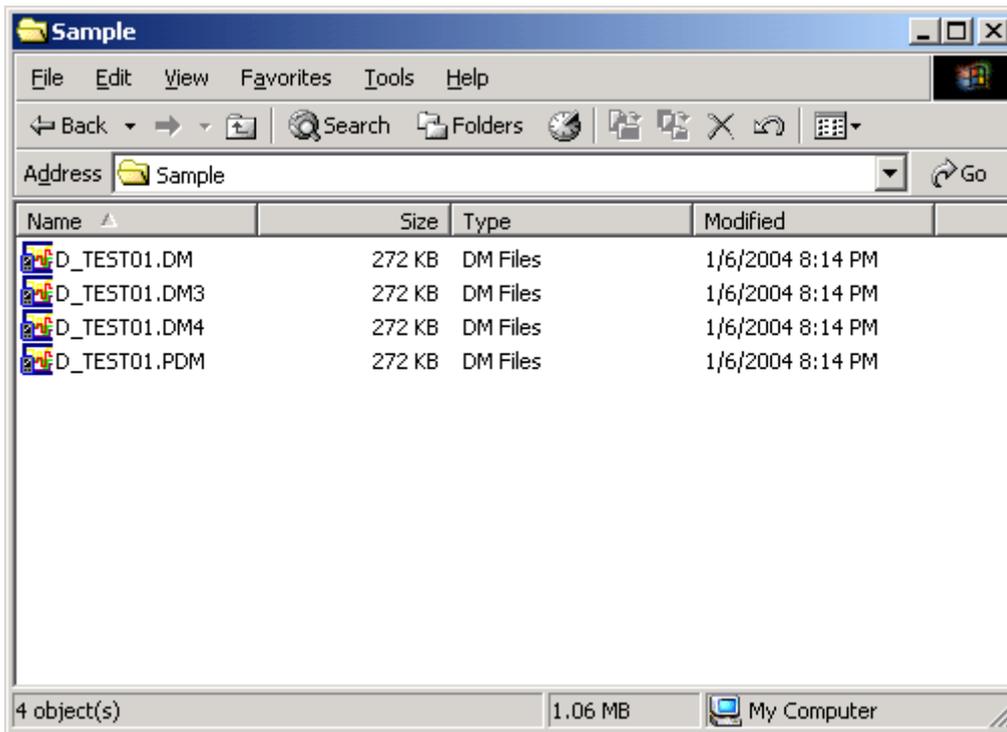


Fig. 5-2-1: Windows Explorer Screen

There are four kinds of ECU data file extensions: DM3, DM4, DM, and PDM. Files are

indicated by the  icon.

(Files extensions are not shown if “Do not show registered file extensions” is checked in Explorer’s optional settings.)

“DM3” & “DM4”: ECU data files saved with Intelligent Tester II Ver.1.2 or earlier.

“DM”: ECU data files saved with Intelligent Tester II Ver.2.0 or later.

“PDM”: ECU data files saved with Datalist / Snapshot (binary form)

### 2 Double-click the file to be displayed.

Double-clicking the file brings up the graph display screen.

### 5.3. Outline of graph display screen

After selection of the desired file, the graph display screen appears, displaying the selected data in the graph display area.

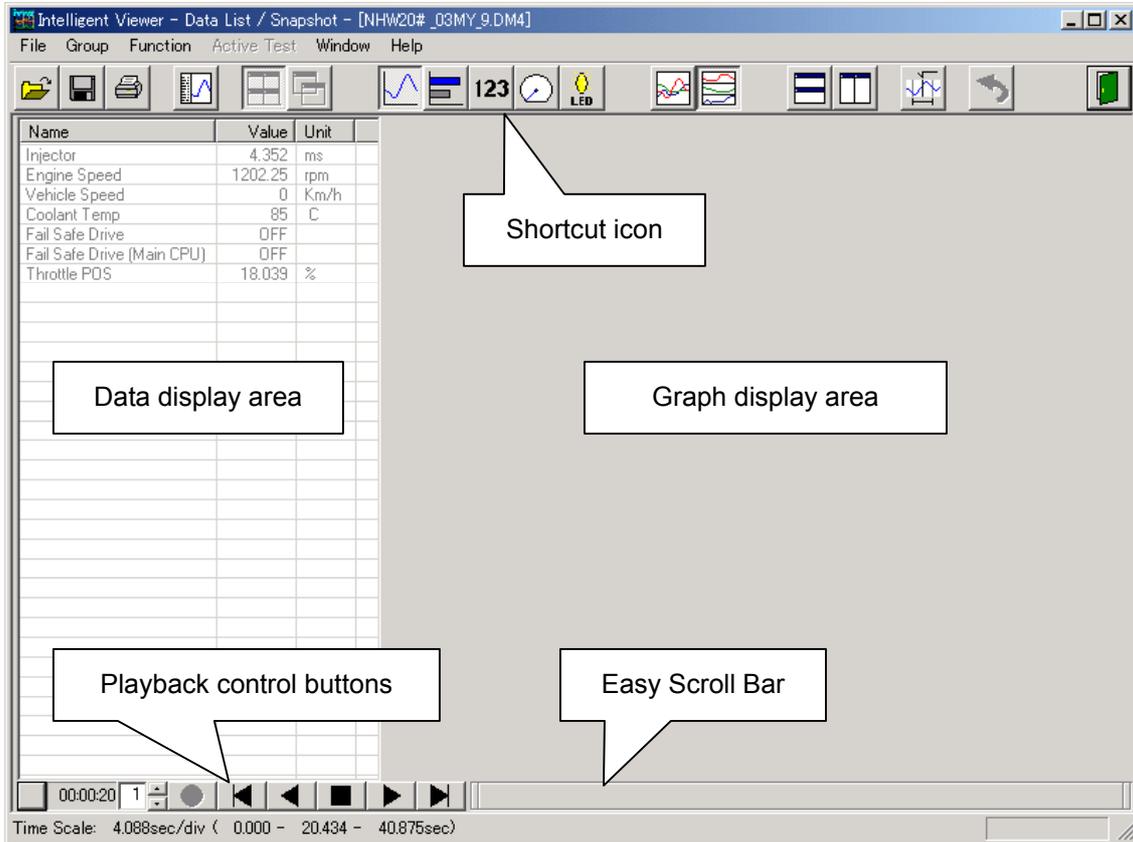


Fig. 5-3-1: Graph Display Screen

Description of the shortcut icons:

Icon	Function	Description
	Open file	Reads file data stored on the PC.
	Save file	Saves the data being displayed as a file.
	Print	Prints screen image data.
	List display ON/OFF	Turns on/off the data display.
	Template mode display	Displays the graph in template mode.
	Flexible mode display	Displays the graph in flexible mode. (under development)
	Line graph display	Displays data as a line graph in the graph display area.
	Bar graph display	Displays data as a bar graph in the graph display area.
	Numeric data display	Displays numeric data in the graph display area.
	Meter display	Displays data represented by a meter in the graph display area.
	LED display	Displays data represented by a LED in the graph display area.
	Overlap graph	Displays an overlap line graph.
	Split graph	Displays split line graphs.
	Vertical alignment	Vertically align the data being displayed in the graph display area.
	Horizontal alignment	Horizontally align the data being displayed in the graph display area.
	Setup X-Axis	Sets the value of one division on the graph's time axis (x-axis), and the position of the playback line.
	Return	Closes the graph display screen and returns to the main screen.

## 5.4. Displaying file data as a graph

You can display the data graphically by either dragging and dropping it from the data display area to the graph display area, or double-clicking on the data.

Multiple graph windows can be displayed simultaneously.

- 1 Select the data that you wish to display as a graph (drag it to the graph display area).

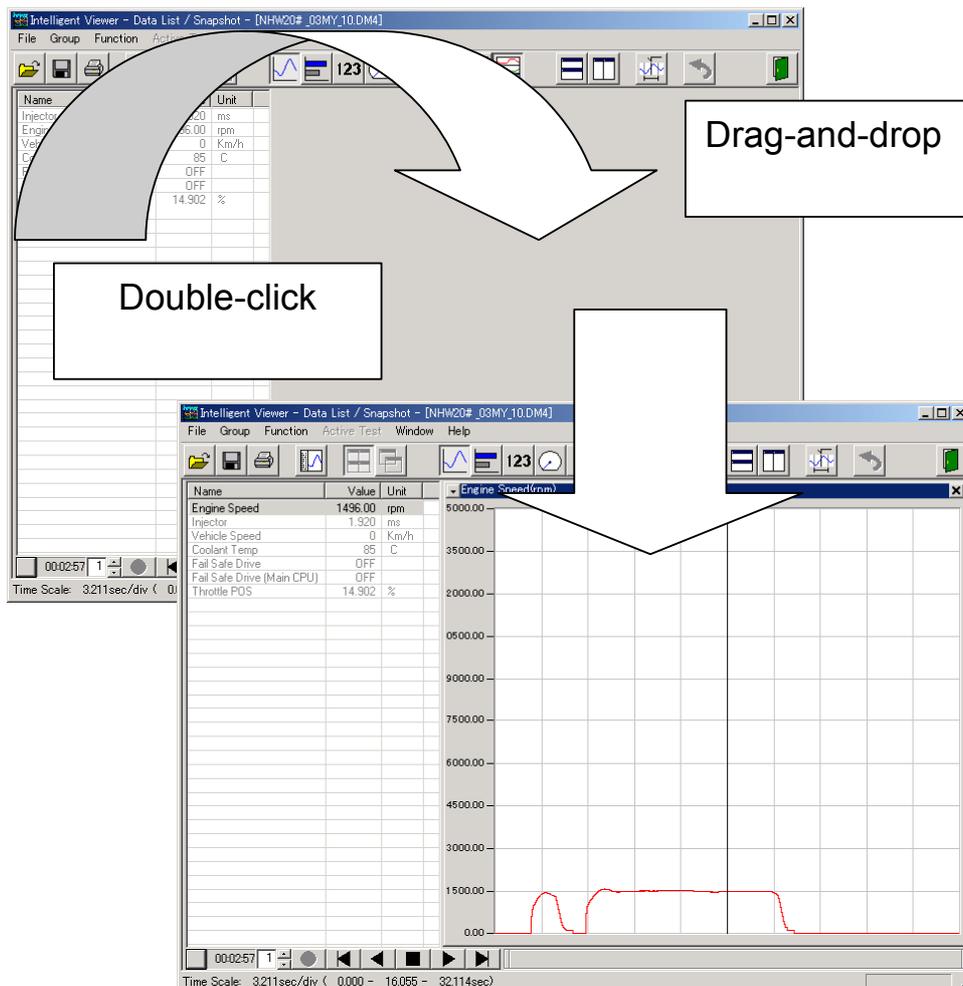


Fig. 5-4-1: Drag-and-Drop Graph Display

- 2 To close a graph window:

Click the Close button in the top right corner of the window.



Fig. 5-4-2: Close Button

**3 To hide the data display area with the graph display area visible:**

Click the  (list display ON/OFF) button. The data display area will disappear and only the graph display area will stay visible.

If you click it again, both data display areas will be activated again.

**4 To align graph windows:**

Click the  (vertical alignment) button to align the graphs vertically.

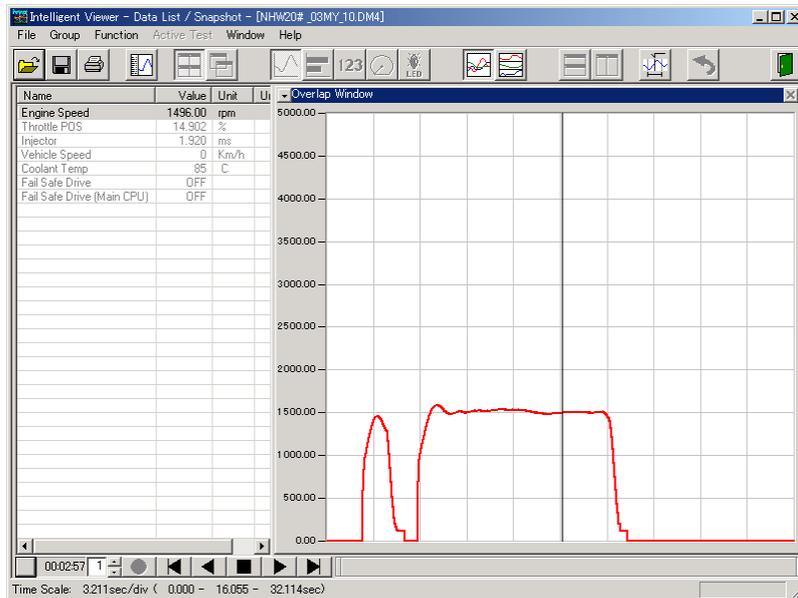
Click the  (horizontal alignment) button to align the graphs horizontally.

**5 To display data as an overlap graph or split graphs:**

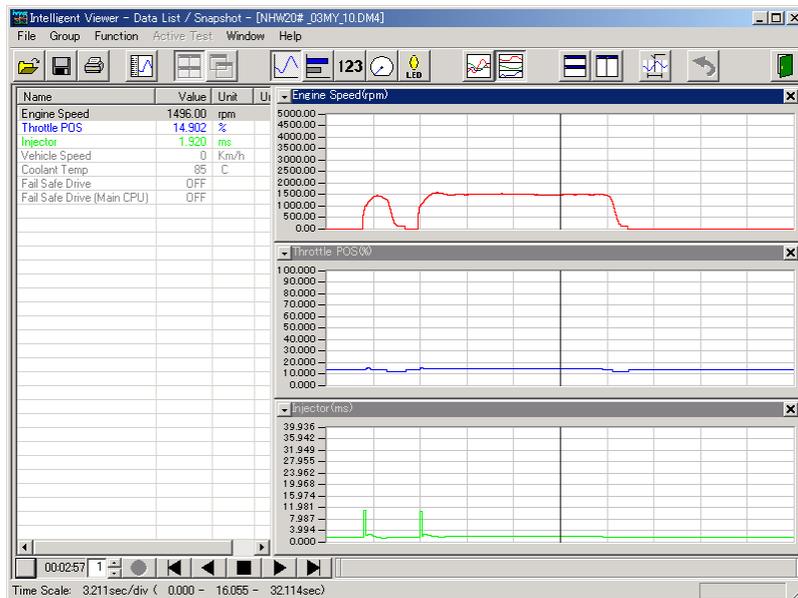
If you click the  (overlap graph) button, the data being displayed in the graph display area will be represented by an overlap graph.

If you click the  (split graph) button, the data being displayed in the graph display area will return to the split-graph display mode.

In split-graph display mode, the data can be represented by line graphs, bar graphs, numeric data, meters, or LEDs. However, only a line graph is available in overlap-graph display mode.



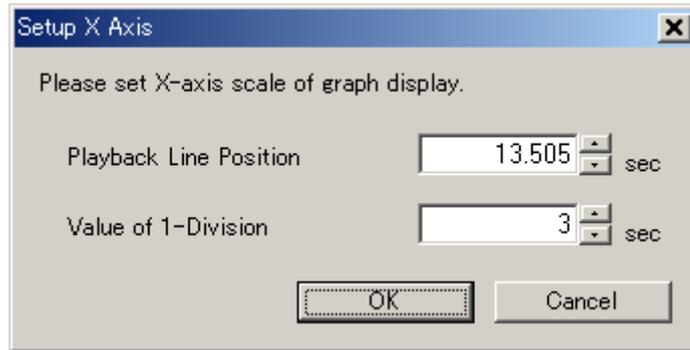
**Fig. 5-4-3: Overlap Graph**



**Fig. 5-4-4: Split Graphs**

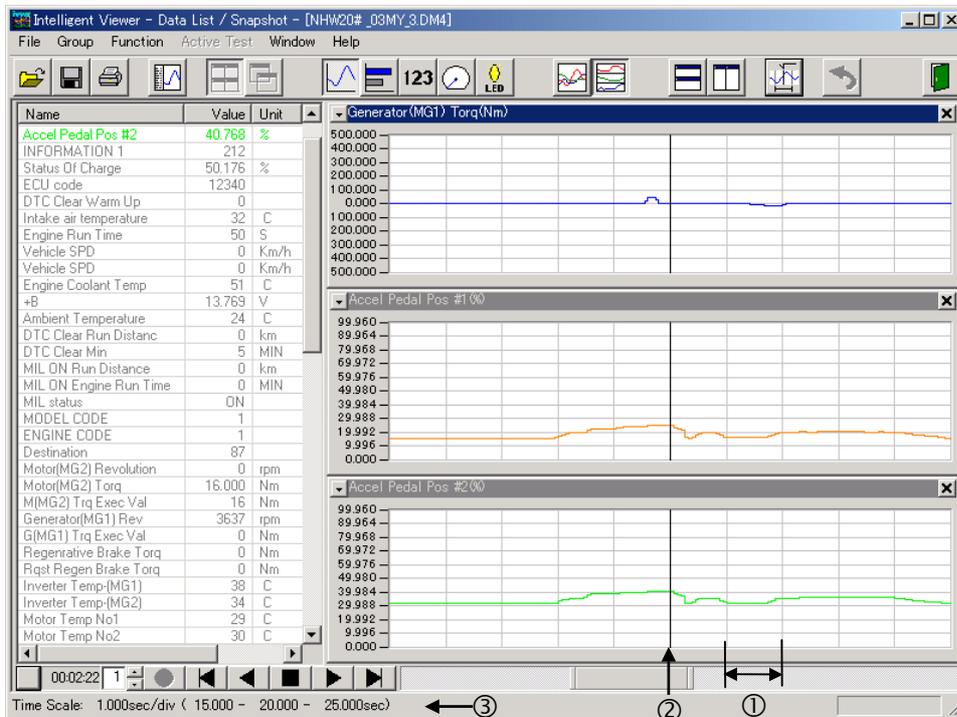
**6 To set the graph's time axis scale and move the playback line position:**

Click  (Setup X-Axis) to display the 'Setup time axis' dialog box. You can set the value of one division on the time axis (x-axis) and the position of the playback line.



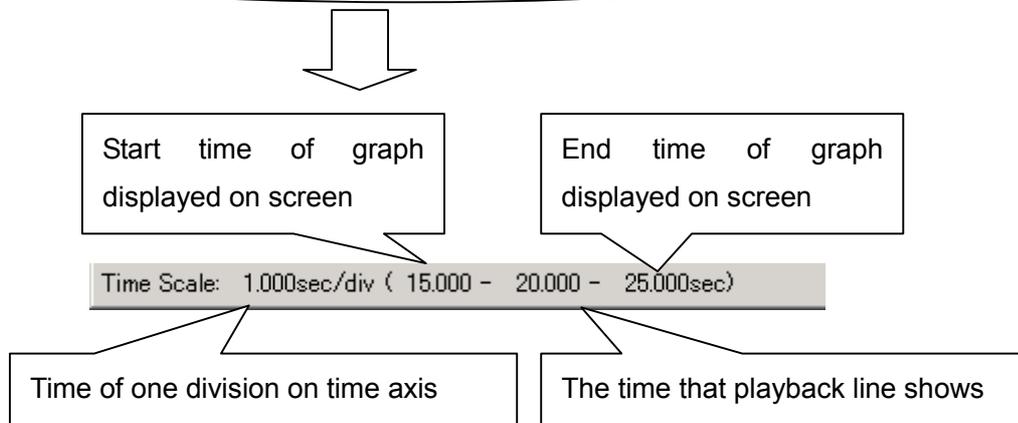
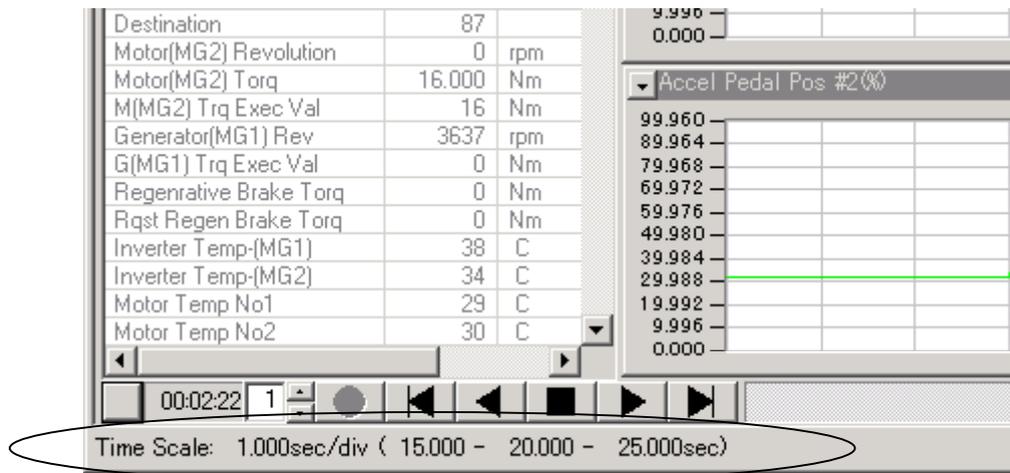
**Fig. 5-4-5: Setup Time Axis Dialog Box**

Example: If the playback line indicates 20 seconds and the value of 1 division is 1 second



**Fig. 5-4-6: After setting the time axis**

- ① The interval of this time axis division is 1 second
- ② Move the playback line to 20 seconds
- ③ Show the current graph's time axis scale data



**Fig. 5-4-7: Time Axis Scale Data**

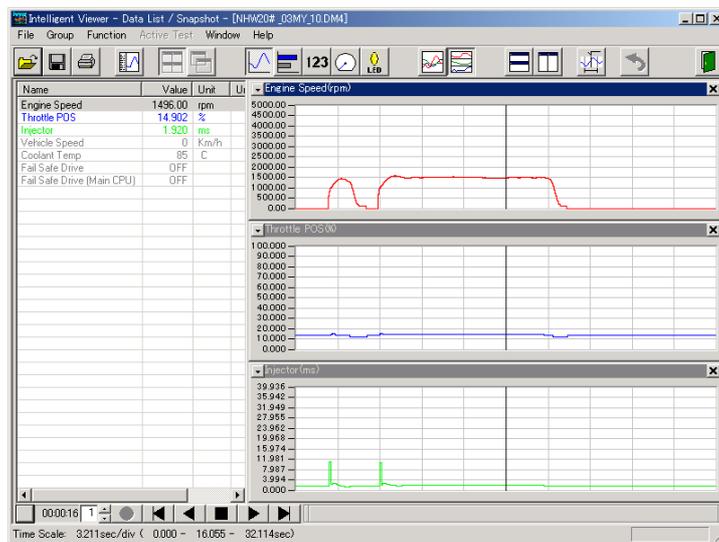
## 7 To rearrange graphs:

If data is displayed in a mode other than overlap-graph display mode, you can move graphs vertically.

Drag the title bar of the graph window to where you wish to move; it will be put in that position.

The data display order in the data display area will be changed accordingly.

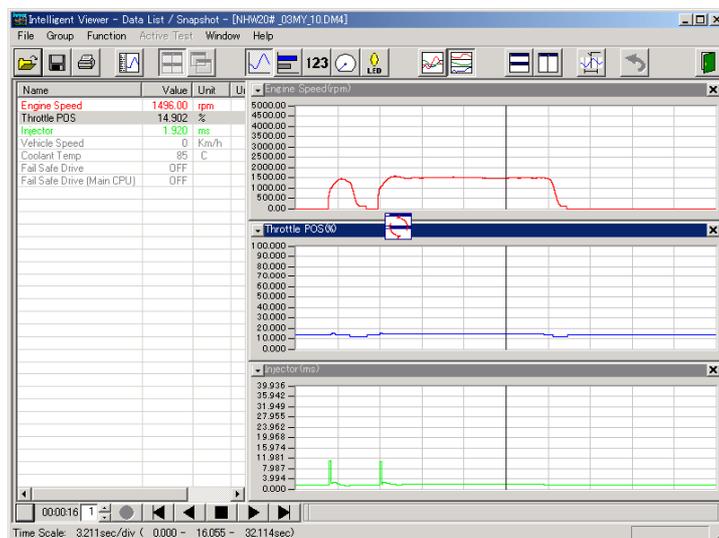
(1) Engine Speed is at the top, Throttle POS in the middle, and Injector at the bottom.



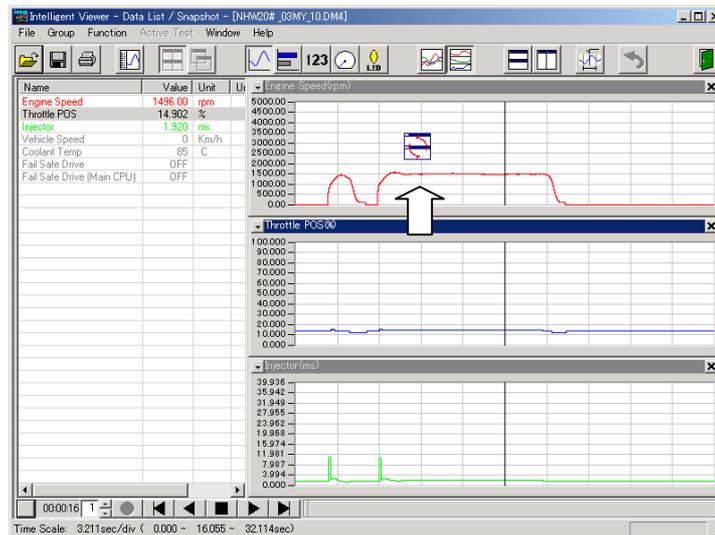
(2) Drag the title bar of the Throttle POS window with the left mouse button.



The mouse pointer will take the shape of  (rearrangement mode).

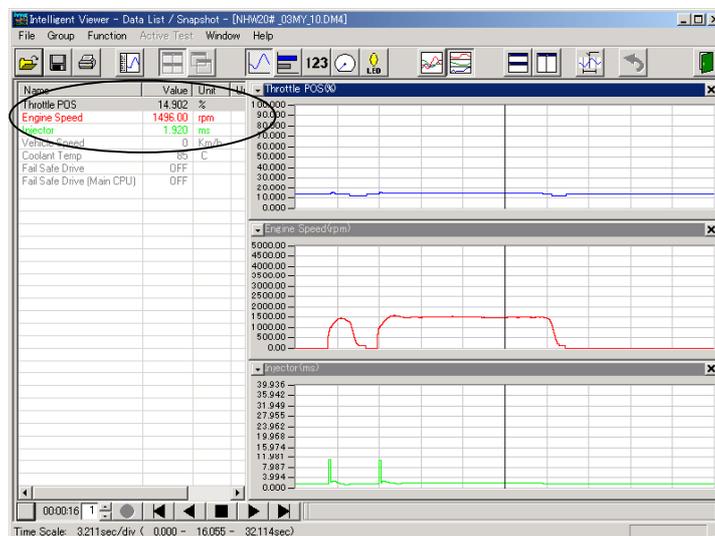


(3) Drag  to Engine Speed.



(4) Throttle POS is located at the top, Engine Speed in the middle, and Injector at the bottom, as a result.

The data display order in the data display area will be changed accordingly.



## 8 Displaying trigger / marker data

Any trigger or marker data among the data saved on Intelligent Tester II or a computer can be displayed.

On a line graph, a trigger appears as a purple vertical line , and a marker appears as a red vertical line .

When the playback line passes through the trigger or marker point during playback, “Trigger Position” or “Marker Position” appears at the bottom right of the screen.

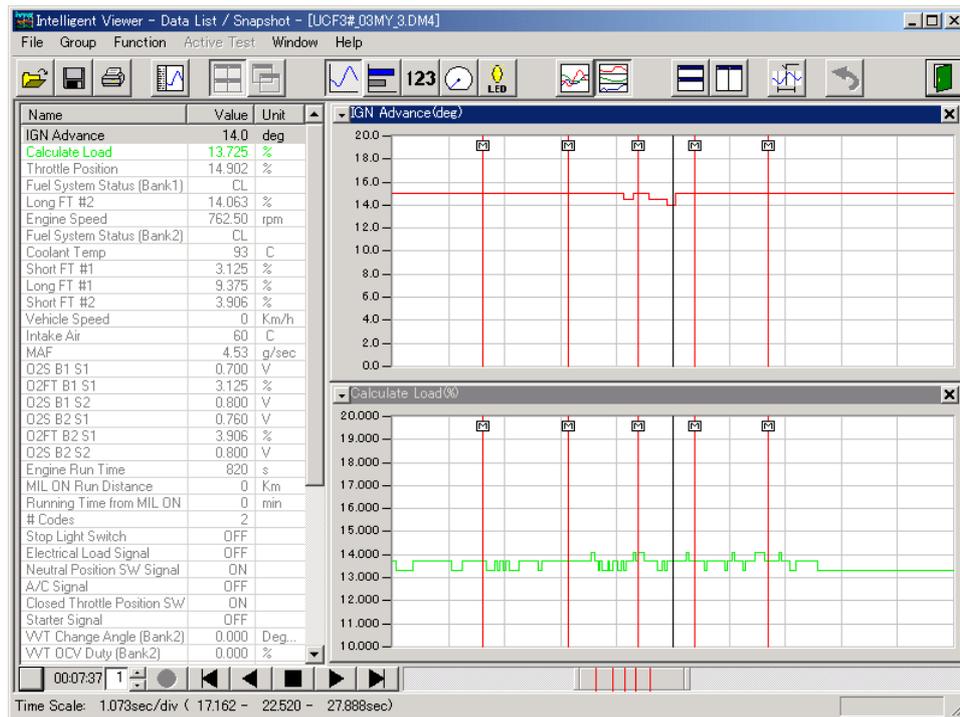


Fig. 5-4-8: Trigger / Marker Display Screen

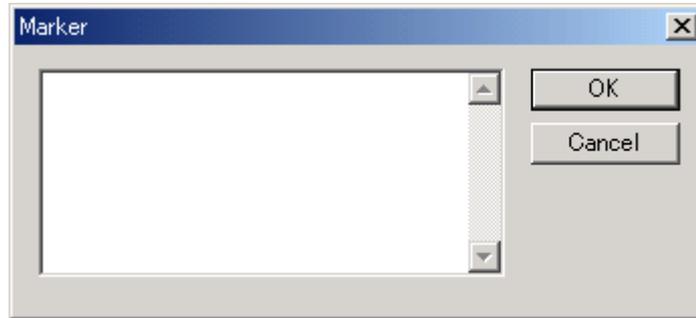


Fig. 5-4-9: Display when Playback Line Passes Through Trigger / Marker Point

You can add a memo to a trigger or marker.

Click **T** or **M** to open the Marker memo data dialog box. Enter the memo and click the OK button.

**T** or **M** of a trigger or marker with a memo added appears red.



**Fig. 5-4-10: Marker Memo Data Dialog Box**

## 5.5. Graph representation methods

File data can be represented by a line graph, bar graph, numeric data, meter, or LED.

### Line graph

Click the shortcut icon  (line graph) button to display the data as a line graph.

The value indicated by the playback line will be displayed as the current value in the data display area.

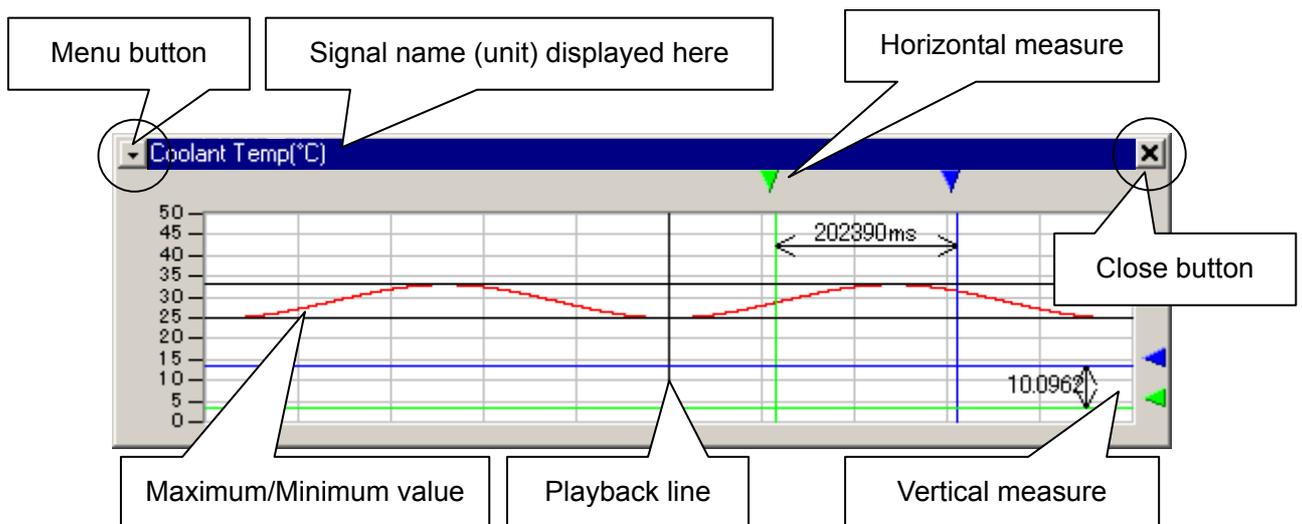


Fig. 5-5-1: Line Graph

Click the menu button to display the line graph menu.

Use the menu to perform settings.

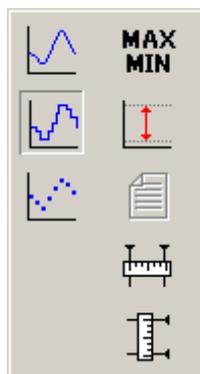


Fig. 5-5-2: Line Graph Menu

**1 To display a line graph in normal mode:**

Display a line graph from file data measurements connected by a straight line.

Click the  (line) button to display an interpolated line graph.

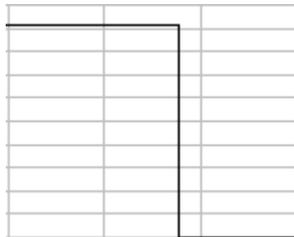


**Fig. 5-5-3: Line Graph - Normal Display**

**2 To display a line graph in stepped mode (default):**

Display a line graph from file data measurements in stepped mode.

Click the  (step line) button to display a stepped line graph.

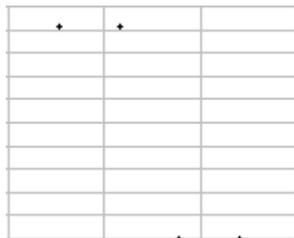


**Fig. 5-5-4: Line Graph - Stepped Mode Display**

**3 To display a dot graph in stepped mode:**

Display a dot graph from file data measurements.

Click the  (dot line) button to display a line graph with dots.

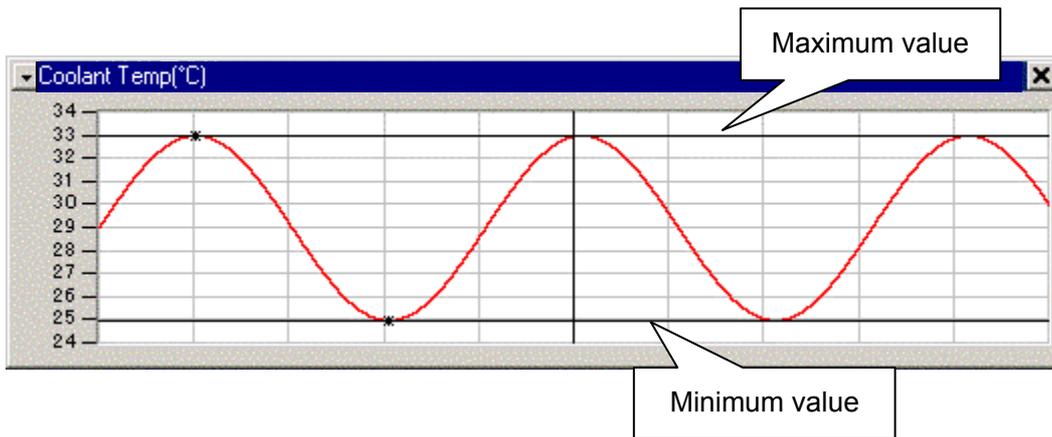


**Fig. 5-5-5: Line Graph with Dots**

**4 To determine maximum and minimum values:**

Display the maximum and minimum values in the file data in the graph.

Click the  (maximum/minimum) button to display points and line indicating the maximum and minimum values in the graph.

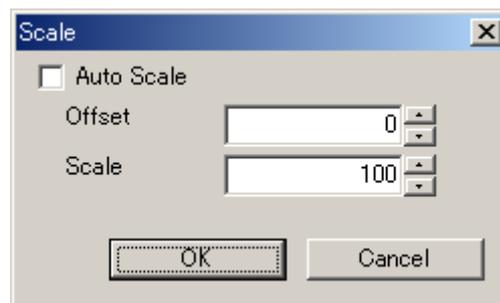


**Fig. 5-5-6: Maximum and Minimum Values Display**

**5 To change data display range and display starting point:**

Use the Scale dialog box to change the display range indicated on the Y axis.

Click the  (scale settings) button to display the Scale dialog box.



**Fig. 5-5-7: Scale Dialog Box**

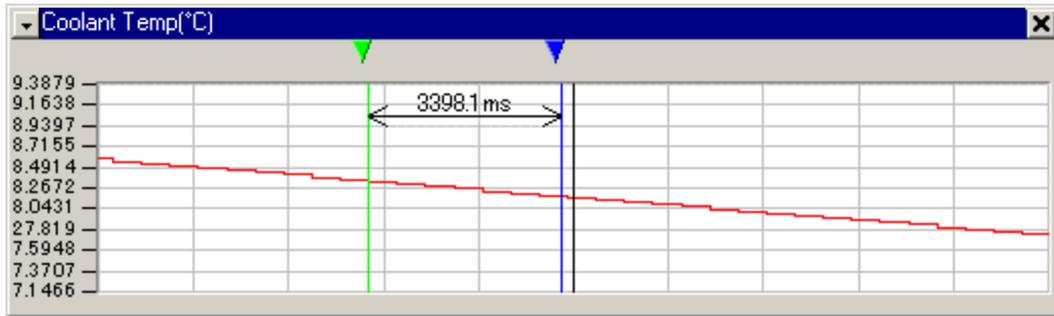
Input the desired starting point on the Y axis in the Offset field and the desired size per graph scale division in the Scale field. Then, click the OK button to save the changes.

If the Auto Scale box in the Scale dialog box is checked, the mode changes to Auto Scale mode, and Offset and Scale are set automatically from the maximum and minimum values in the graph.

**6 To check a data time interval:**

Display the horizontal measure and determine the time interval.

Click the  (horizontal measure) button to display the horizontal measure in the graph.



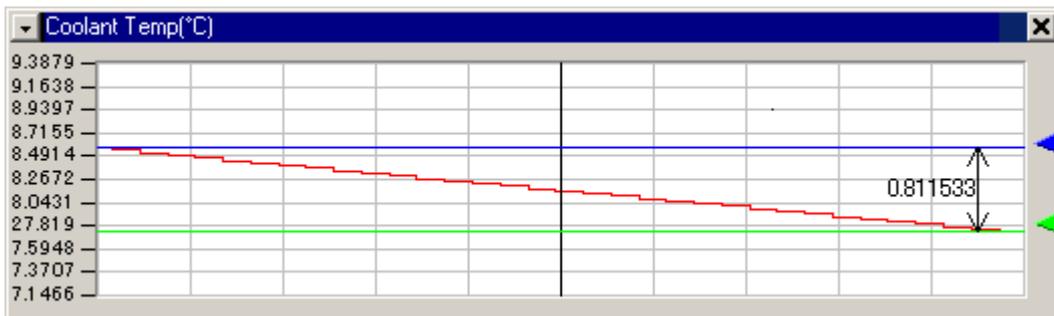
**Fig. 5-5-8: Horizontal Measure**

Drag the two cursors (▼,▼) with the mouse to position them. The interval between the two time points will be displayed in the graph.

**7 To check a variation in data:**

Display the vertical measure and determine the vertical interval.

Click the  (vertical measure) button to display the vertical measure in the graph.



**Fig. 5-5-9: Vertical Measure**

Drag the two cursors (◀,▶) with the mouse to position them. The variation between the two points will be displayed in the graph.

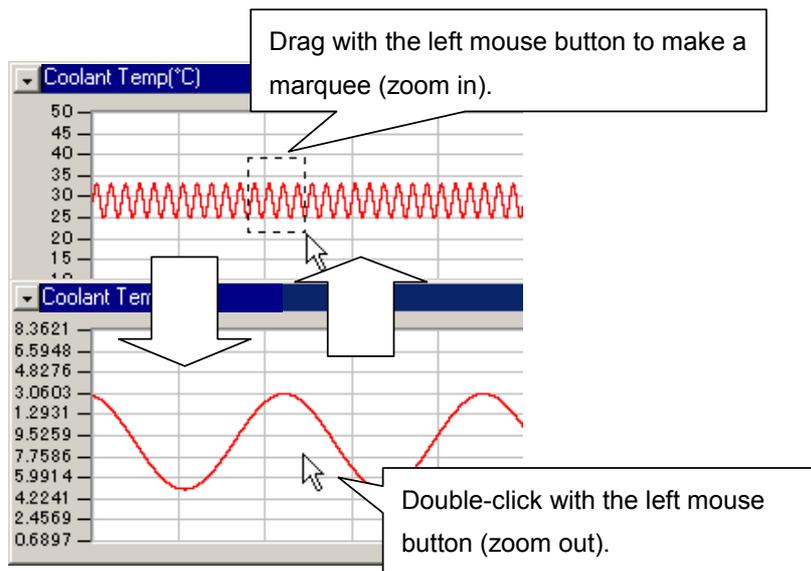
**8 To zoom in/out a graph:**

Drag with the left mouse button to make a marquee (dotted rectangle) specifying the desired area; you can then zoom it in.

To return the graph to its original size (zoom out), double-click the any part of the graph with the left mouse button.

You can also use the easy scroll bar to zoom in/out.

(For further information on the easy scroll bar, see **10** Operating the easy scroll bar.)



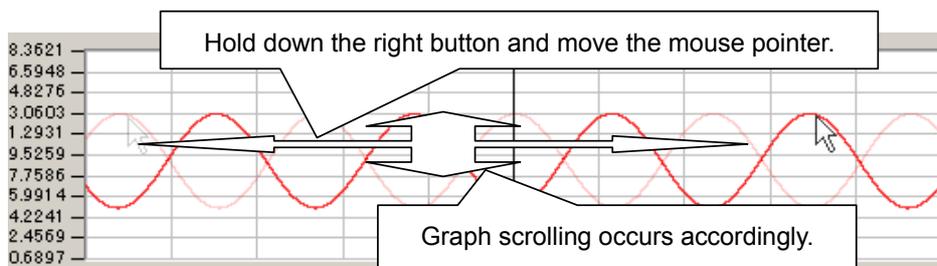
**Fig. 5-5-10: Zoom In/Out**

**9 To scroll a graph:**

You can scroll vertically and horizontally by dragging on the graph with the right mouse button.

You can also use the easy scroll bar to perform horizontal scrolling.

(For further information on the easy scroll bar, see **10** Operating the easy scroll bar.)



**Fig. 5-5-11: Dragging with Right Mouse Button**

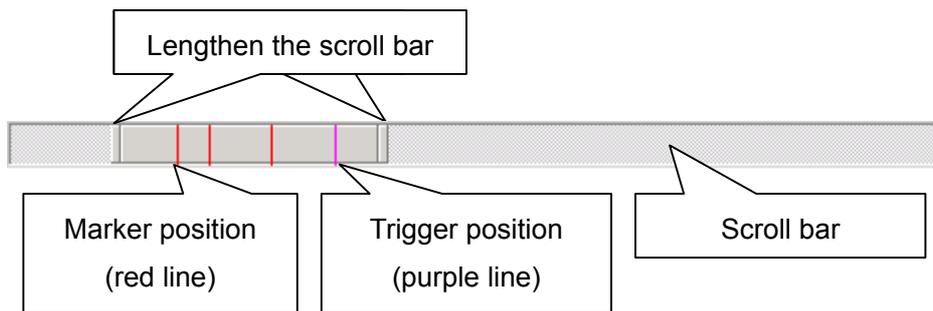
**10** **Operating the easy scroll bar:**

You can scroll and zoom in/out graphs with the easy scroll bar.

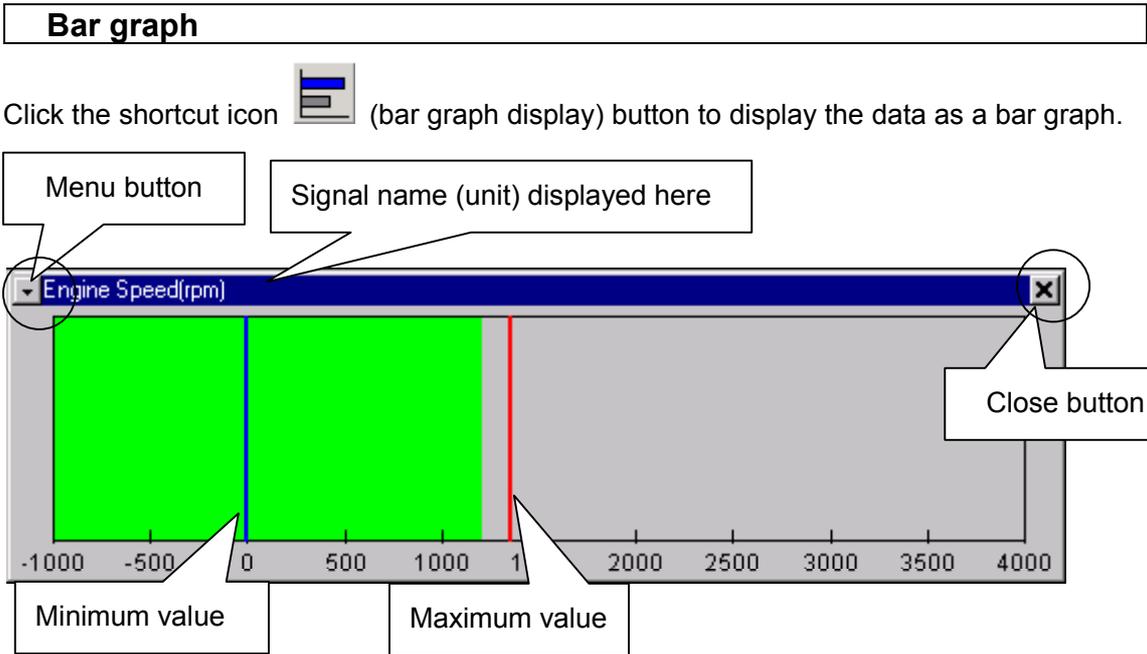
To zoom out the graph, drag the range adjusting sliders with the mouse to lengthen the scroll bar. Conversely, to zoom it in, shorten the scroll bar.

As the scroll bar is moved, the graph is scrolled horizontally.

If there is a trigger or marker in the data displayed, a red line (marker) or purple line (trigger) appears at that point.



**Fig. 5-5-12: Easy Scroll Bar**



**Fig. 5-5-13: Bar Graph Display**

Click the menu button to display the bar graph menu.  
Use the menu to perform settings.

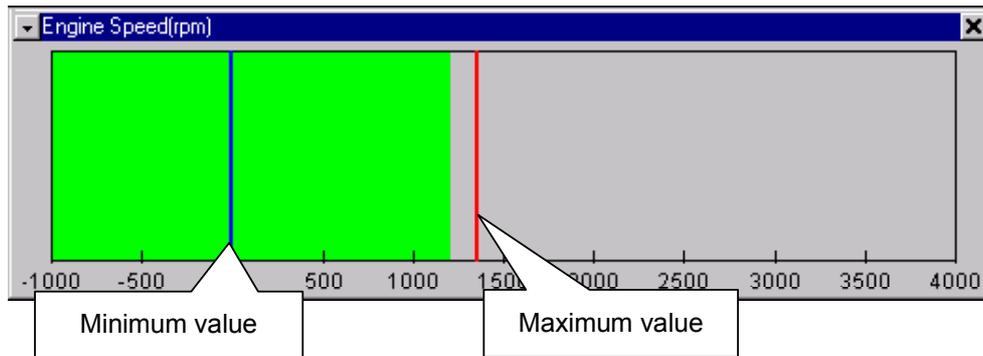


**Fig. 5-5-14: Bar Graph Menu**

**1 To determine maximum and minimum values:**

Display the maximum and minimum values in the file data in the graph.

Click the  (maximum/minimum) button to display points and line indicating the maximum and minimum values in the graph.

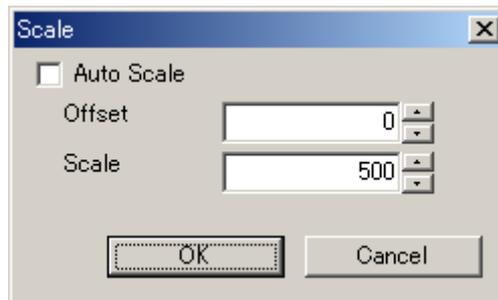


**Fig. 5-5-15: Maximum and Minimum Values Display**

**2 To change data display range and display starting point:**

Use the Scale (settings) dialog box to change the bar graph display range.

Click the  (scale settings) button to display the Scale dialog box.



**Fig. 5-5-16: Scale Dialog Box**

Input the desired display range starting point in the Offset field and the desired size per graph scale division in the Scale field. Then, click the OK button to save the changes.

If the Auto Scale box in the Scale dialog box is checked, the mode changes to Auto Scale mode, and Offset and Scale are set automatically from the maximum and minimum values in the graph.

## Numeric data

Click the shortcut icon **123** (numeric data display) button to display the data as numeric data.

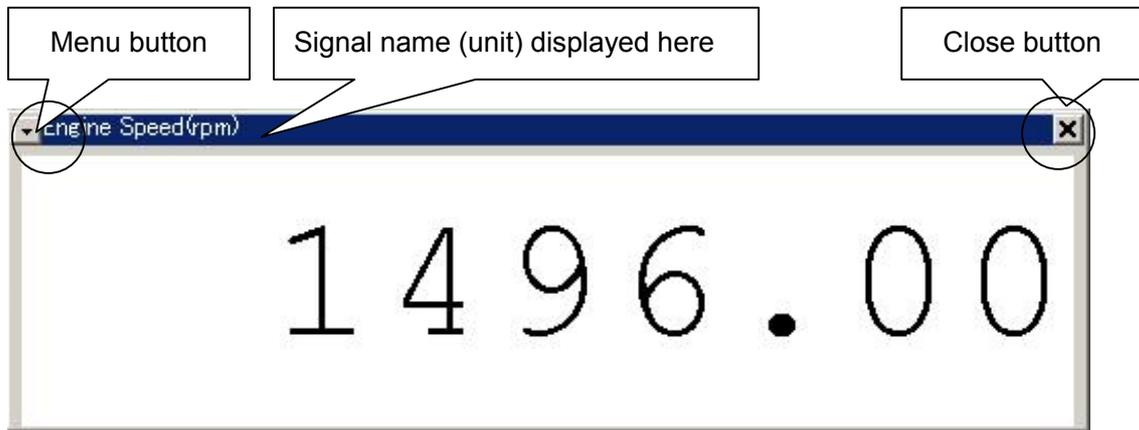


Fig. 5-5-17: Numeric Data Display

Click the menu button to display the numeric data menu.

Use the menu to perform settings.

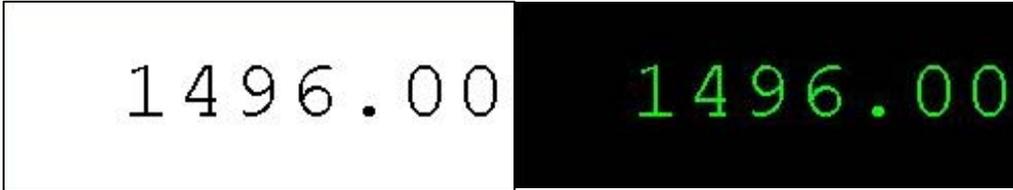


Fig. 5-5-18: Numeric Data Menu

**1 To change the display color:**

Change the numeric data display color to enhance visibility.

Click the **123** (normal) or **123** (highlighted) button to change the display color.

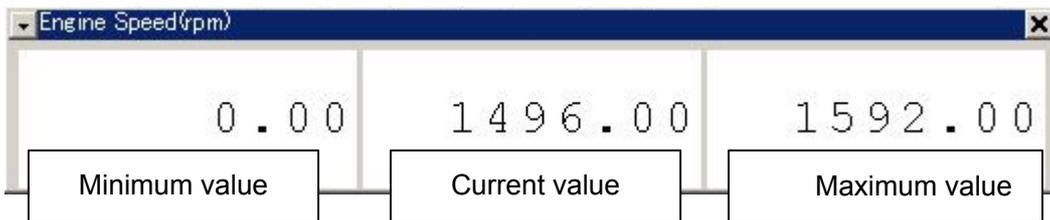


**Fig. 5-5-19: Change of the display color**

**2 To determine maximum and minimum values:**

Display the maximum and minimum values in the file data in the form of numeric data.

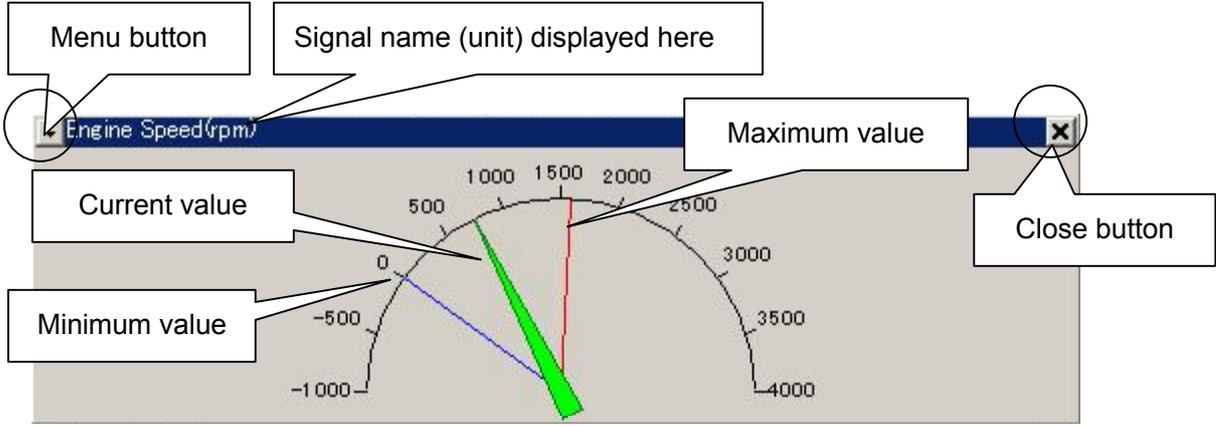
Click the **MAX MIN** (maximum/minimum) button to display a window consisting of three main parts: maximum value, current value, and minimum value.



**Fig. 5-5-20: Maximum and Minimum Values Display**

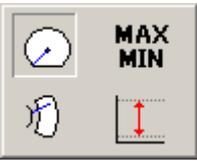
**Meter**

Click the shortcut icon  (meter display) button to display the data as a meter.



**Fig. 5-5-21: Meter Display**

Click the menu button to display the meter menu.  
Use the menu to perform settings.

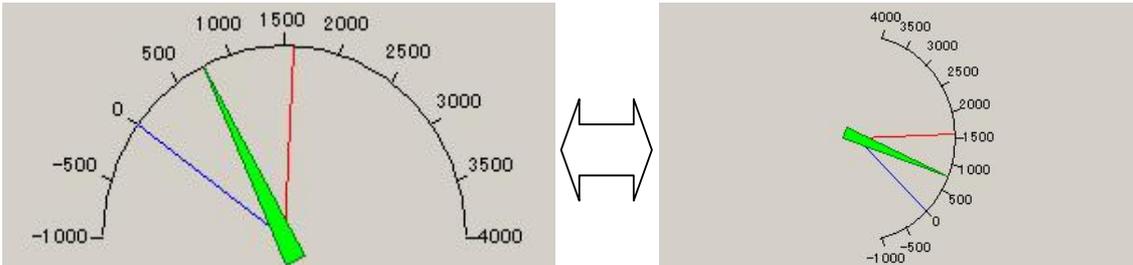


**Fig. 5-5-22: Meter Menu**

**1 To change the display format:**

Change the meter display format to enhance visibility.

Click the  (semicircular meter) or  (circular meter) button to change the display format.

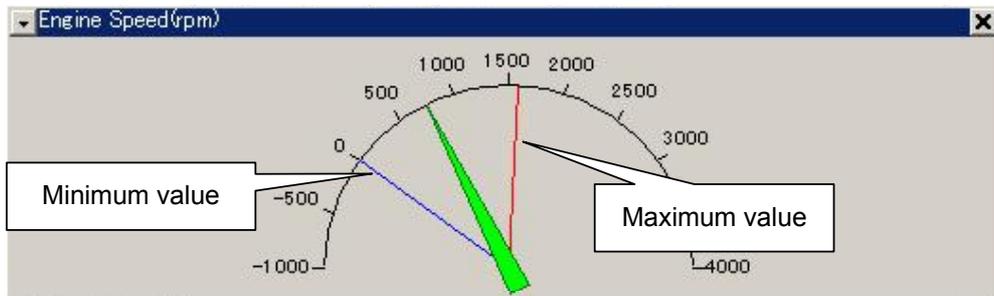


**Fig. 5-5-23: Display Format Change**

**2 To determine maximum and minimum values:**

Display the maximum and minimum values in the file data in the form of numeric data.

Click the  (maximum/minimum) button to display pointers indicating the maximum and minimum values.

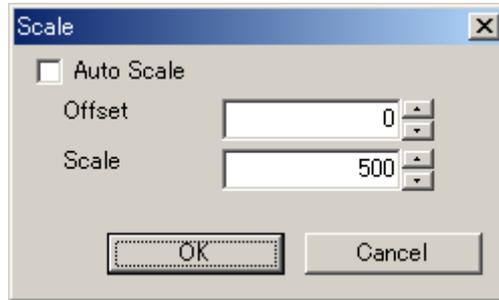


**Fig. 5-5-24: Maximum and Minimum Values Display**

**3 To change data display range and display starting point:**

Use the Scale (settings) dialog box to change the meter graph display range.

Click the  (scale settings) button to display the Scale dialog box.



**Fig. 5-5-25: Scale Dialog Box**

Input the desired display range starting point in the Offset field and the desired size per meter graph scale division in the Scale field. Then, click the OK button to save the changes.

If the Auto Scale box in the Scale dialog box is checked, the mode changes to Auto Scale mode, and Offset and Scale are set automatically from the maximum and minimum values in the graph.

# LED

Click the shortcut icon  (LED display) button to display the data as a LED.

If the value is zero (0), the LED is off; if not, it is on.

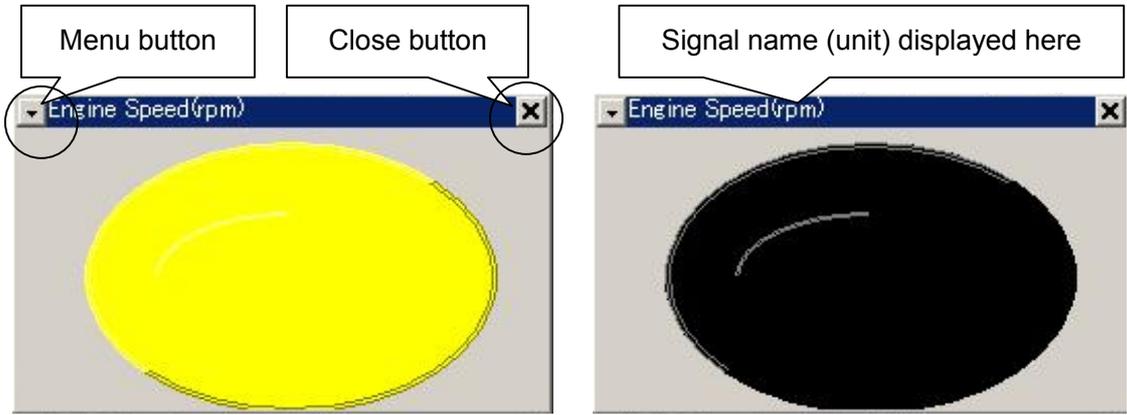


Fig. 5-5-26: LED Display

Click the menu button to display the LED menu.  
Use the menu to perform settings.

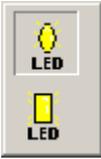


Fig. 5-5-27: LED Menu

**1 To change the display format:**

Change the LED display format to enhance visibility.

Click the  or  button to change the display format.

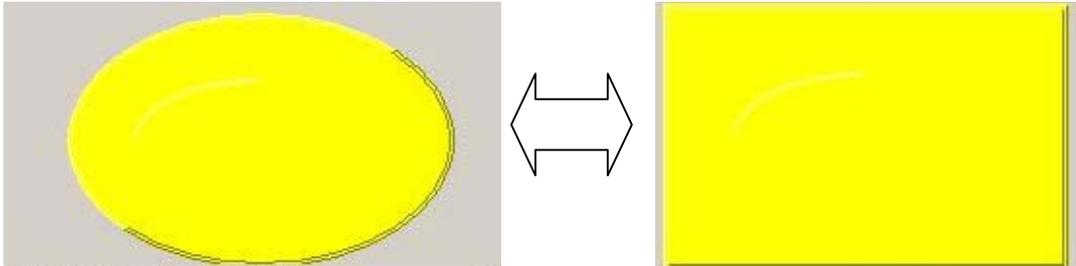
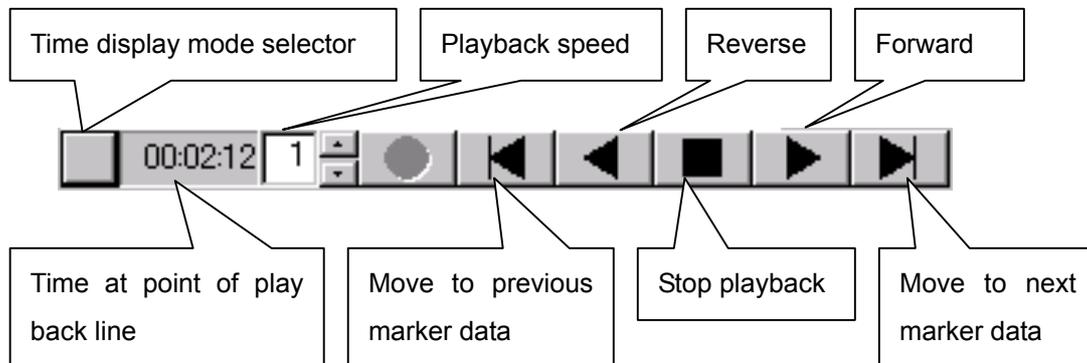


Fig. 5-5-28: Display Format Change

## 5.6. Data playback function

Perform file data playback by operating the playback control buttons.



**Fig. 5-6-1: Playback Control Buttons**

Click the  or  button to start playback; the graph will be scrolled.

Playback will come to a stop when the end of data has been reached or if you click the  button during playback.

Using the  (up and down) buttons, the playback speed can be adjusted with from 1 (low speed) to 5 (high speed).

The time elapsed from the start of file data or the actual timing can be displayed in the time display field using the  button.

Make the playback line go backwards with the  button.

If there is a marker or trigger between the current value and the start of the data, playback comes to a stop at the marker or trigger point.

If there is no marker or trigger, playback moves to the start of the data.

If you click again when the playback line is positioned at the start, playback line moves to the end of the data.

Make the playback line go forward with the  button.

If there is a marker or trigger between the current value and the end of the data, playback comes to a stop at the marker or trigger point.

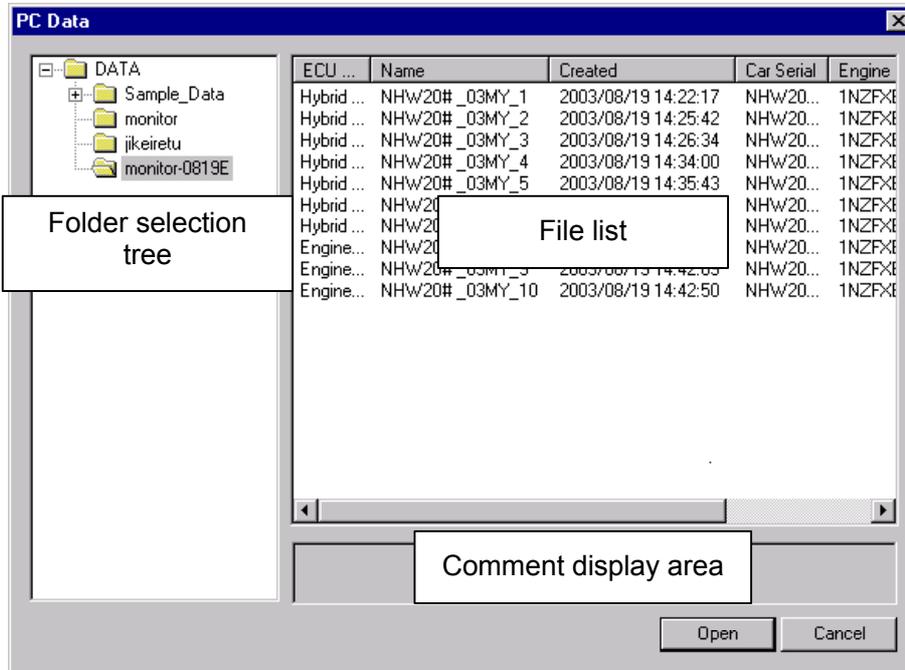
If there is no marker or trigger, playback moves to the end of the data.

If you click again when the playback line is positioned at the end, playback line moves to the start of the data.

## 5.7. Opening a file

Read and display file data stored on the PC.

Click the shortcut icon  (open file) button to display the file selection dialog box.



**Fig. 5-7-1: PC File Selection Dialog Box**

Select the desired file from the PC file selection dialog list and then click the Open button. The file data will be read and displayed as a graph.

## 5.8. Comparing files

This section describes how to compare files saved on the PC.

### 1 To open the files to be compared:

Click the shortcut icon  (Open file) button to display the file selection dialog box.

Check the Comparison box, and select the files you want to compare.

Only files that have been saved in the same ECU can be compared.

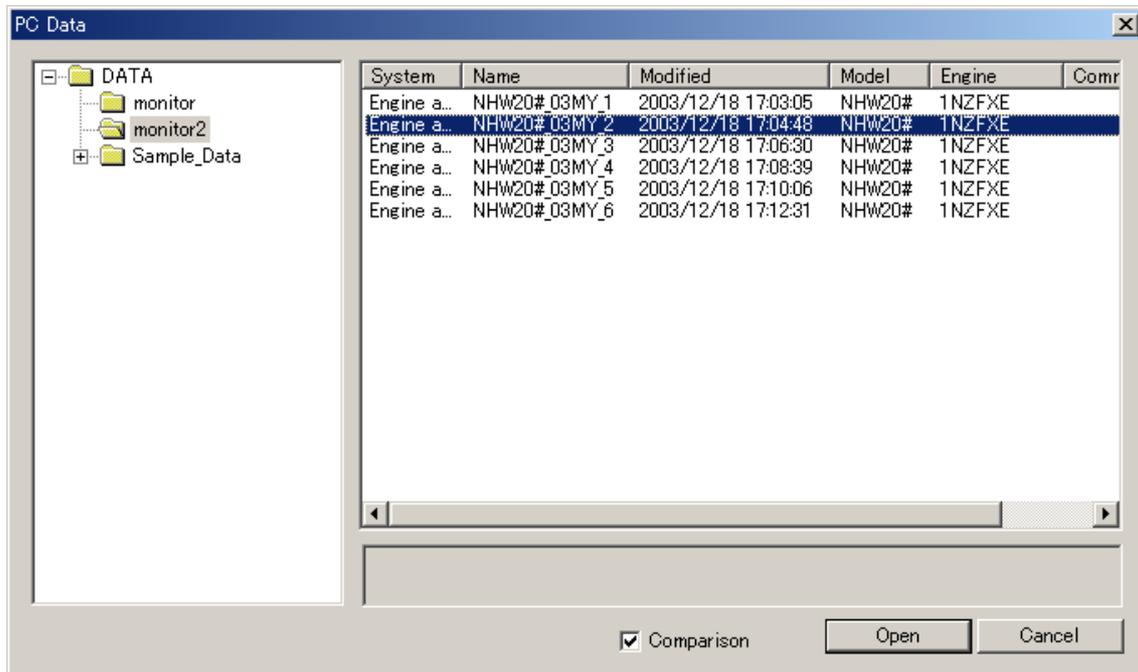


Fig. 5-8-1: File Selection Dialog Box (Comparison)

## 2 File comparison screen

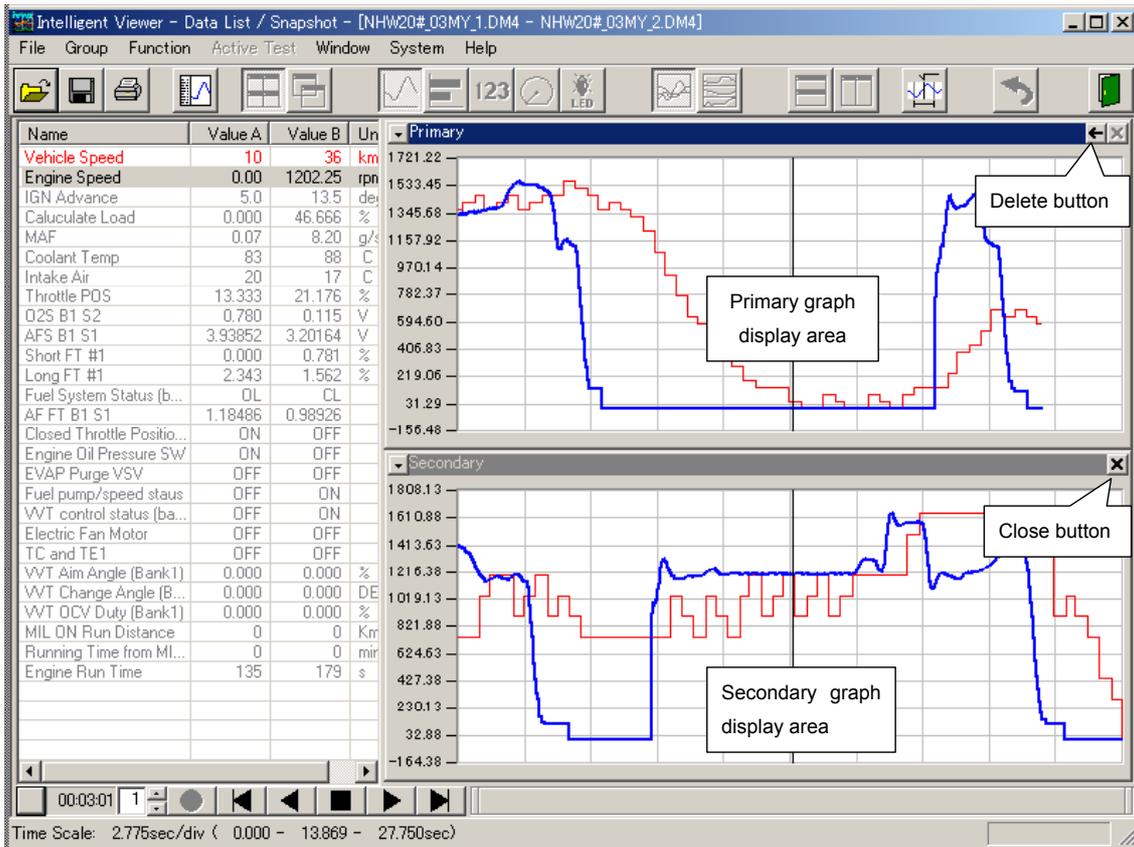


Fig. 5-8-2: Comparing Files

For the file comparison, the primary graph display area is located above the secondary graph display area.

The graph for the file that is opened first is displayed in the primary graph display area, and the graph for the file that is opened second is displayed in the secondary graph display area.

The Value A column in the data display area lists the values for the file which is opened first, and the Value B column in the data display area lists the values for the file which is opened second.

## 3 To display a graph:

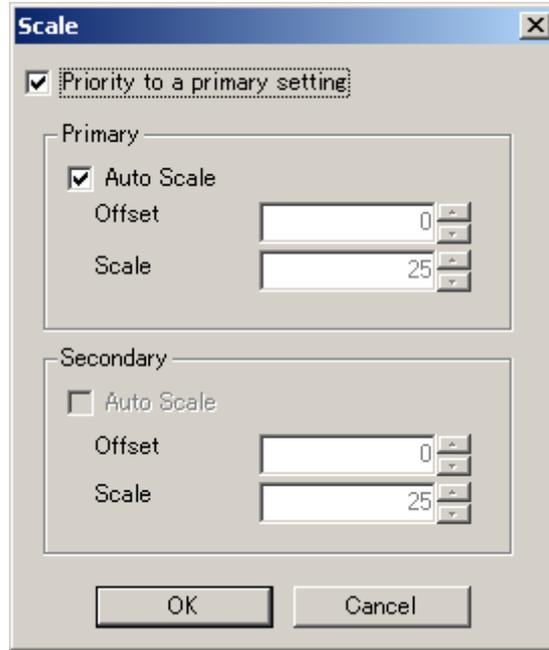
Drag the data you want to display a graph for from the data display area and drop it onto the graph display area, or double-click the data, to display the graph.

## 4 To hide a graph:

Click  (Delete) button at the top right of the primary graph display area to hide the graph for the signal of the sensor currently selected.

**5 Scale setting dialog box when comparing files**

When comparing files, the scale setting dialog box for the file comparison is displayed.



**Fig. 5-8-3: Scale Setting Dialog Box When Comparing Files**

The scale of the Primary graph can be changed by entering values in the Primary graph setting area, and the scale of the Secondary graph can be changed by entering values in the Secondary graph setting area.

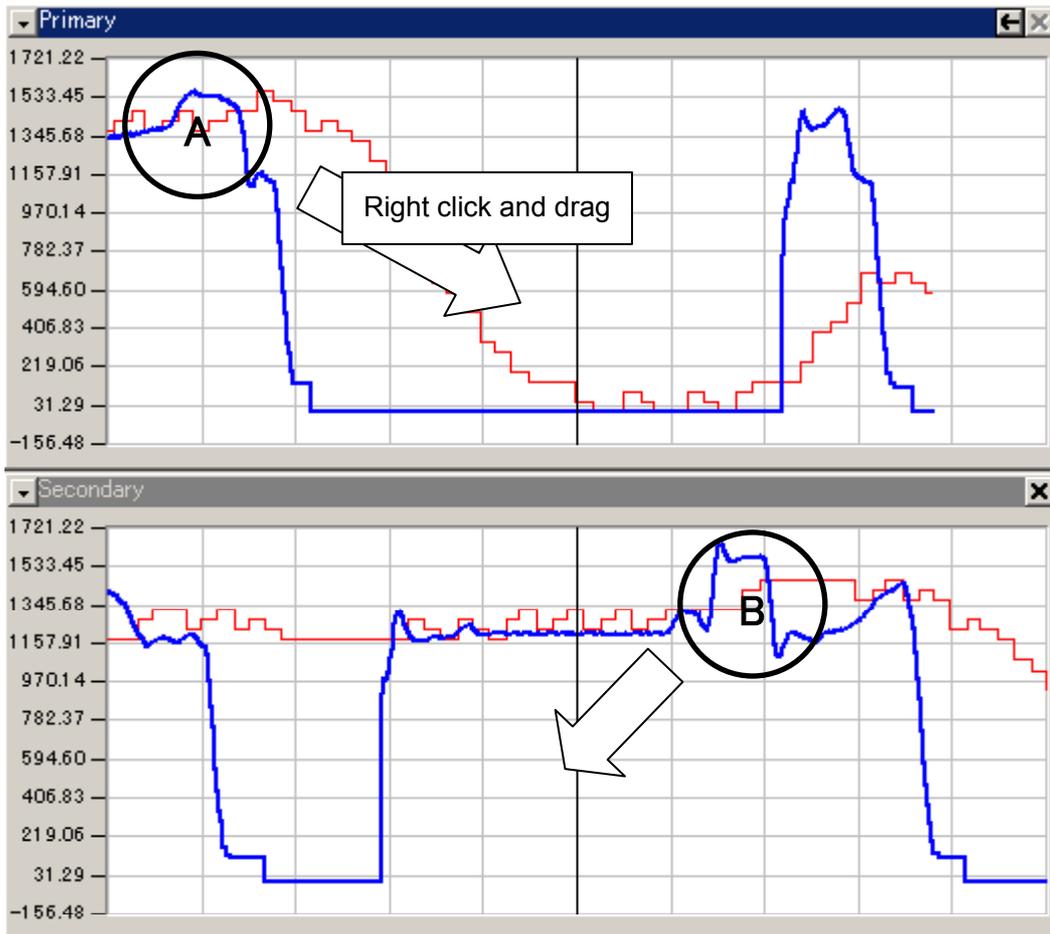
To change the scale of a graph, enter the start position of Axis Y in the Offset column field and the size of one graduation of the graph in the Scale column field, and then click the OK button.

Select the Auto Scale check box to enable auto scale mode, which automatically sets the Offset and Scale values of the graph according to its maximum and minimum values.

Select the "Priority to a primary setting" check box to apply the Primary graph setting to the Secondary graph. If Auto Scale in the Primary area is enabled, the Auto Scale values of the Primary graph are applied to the Secondary graph.

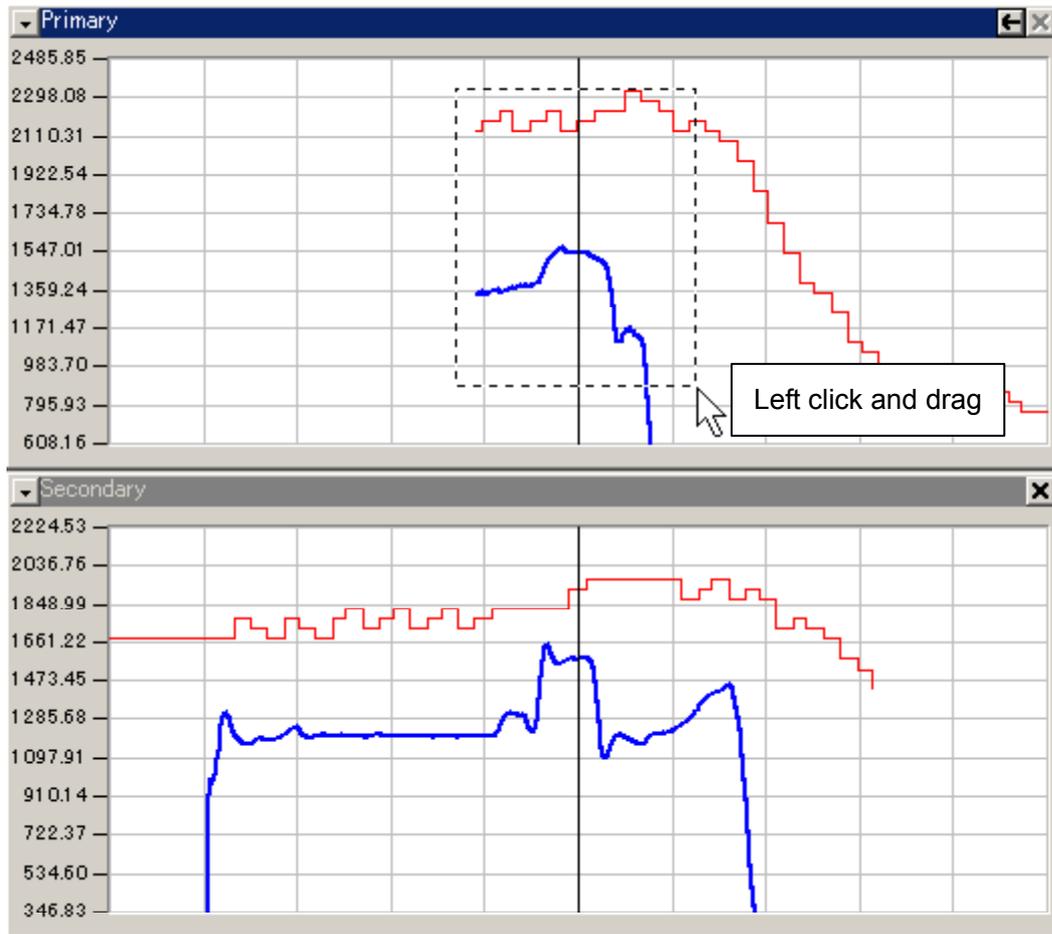
**6 To compare files:**

As an example, when comparing Point A and Point B in the graphs below, right click and drag the points until they are in the centers of their respective graphs.



**Fig. 5-8-4: Moving the Points to be Compared**

Magnify one of the areas you want to compare by left clicking and dragging a point in that area on the graph.



**Fig. 5-8-5: Magnifying the Points to be Compared**

Perform the comparison using the measuring function, etc.

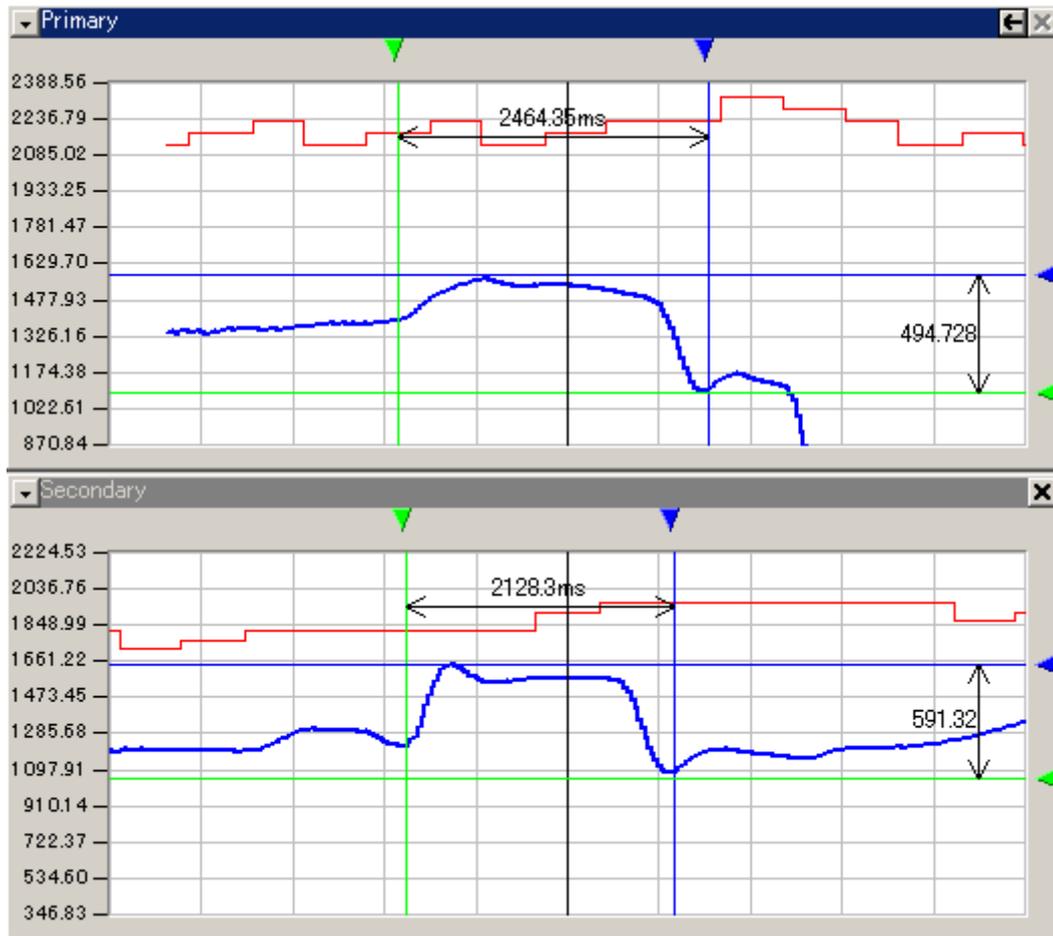


Fig. 5-8-6: Comparing the Files

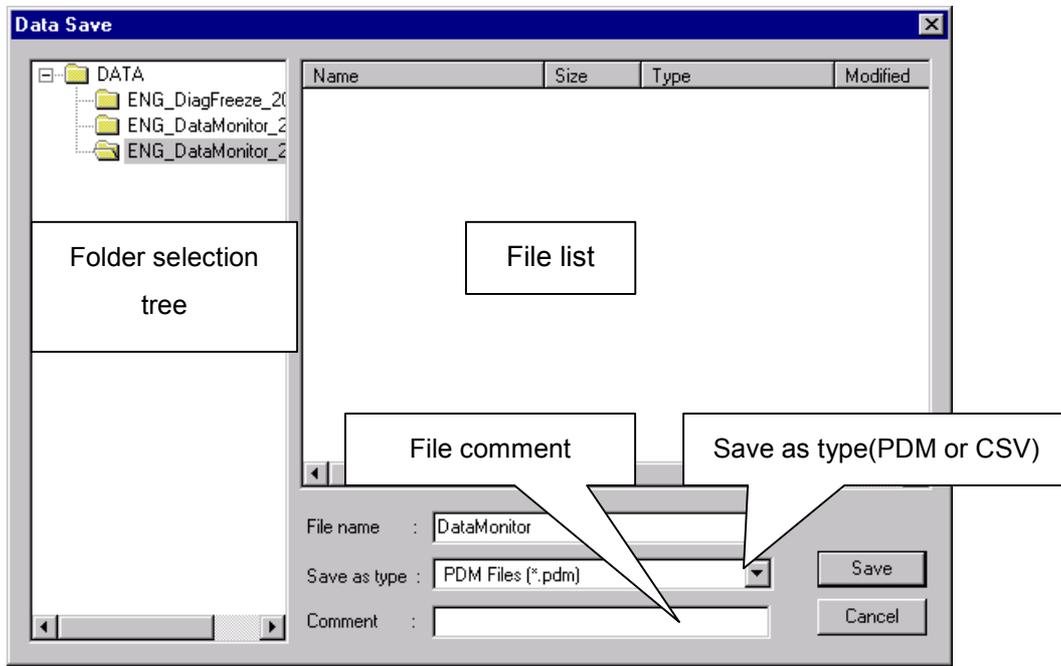
**7 To end the file comparison:**

Click **X** (Close) button at the top right of the secondary graph display area to end the file comparison.

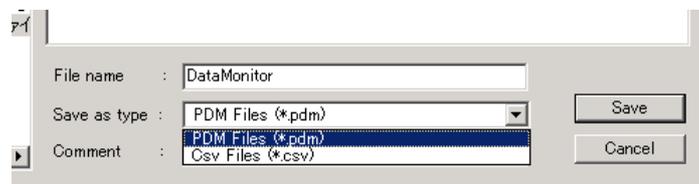
## 5.9. Saving data

Save the data being displayed in the graph as a file.

Click the shortcut icon  (save file) button to display the Data Save dialog box.



**Fig. 5-9-1: Data Save Dialog Box**



**Fig. 5-9-2: Selecting Type of File**

After setting the save location, file name, file type and comments, complete saving by clicking the Save button.

You can choose from the following two formats in which to save the file. (Set by “Save as type”)

- pdm: Binary file for Datalist / Snapshot  
Can be opened by Datalist / Snapshot.
- csv: Comma-delimited text file  
Can be opened by a general-purpose text editor.

**Note: Files saved in CSV format cannot be opened by Datalist / Snapshot.**

## 5.10. Printing a graph

### 1 To change the display format:

From the file menu, click on Print Setup. The Print Setup dialog box appears. Carry out settings such as print type, image orientation, printer settings, etc.

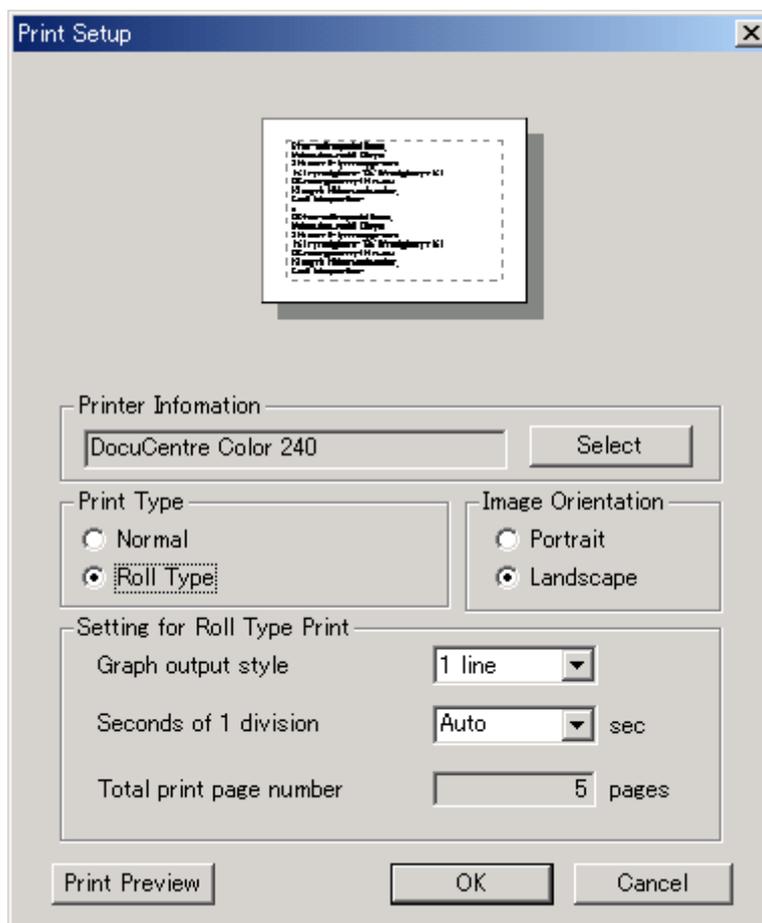


Fig. 5-10-1: Print Setup Dialog Box

### 2 To set normal printing:

Prints the image displayed on the screen.

Set Print Type to Normal, set the Image Orientation, then click the OK button.

### 3 To set roll printing:

Prints a line graph on multiple sheets of paper as if printing on roll paper.

Set Print Type to Roll Type and set the Image Orientation.

In the combo boxes, select or enter the graph output style to set the number of graph lines printed on one page, and the number of seconds per division.

#### **4 Printing a graph:**

You can print the image data being displayed on the screen.



Click the  (Print) button to display the Windows standard print dialog box.

Perform the necessary settings such as the paper size and number of copies and then execute the print command.

#### **5.11. Exiting the graph display screen.**



Click the  (Return) button to exit the graph display screen.

The main screen will reappear.

## 6. PC real time

The PC real-time function enables you to display ECU data graphically in real time via Intelligent Tester II. The data displayed is automatically saved in a file and can be analyzed with the ECU data monitor function.

### 6.1. Selecting automatic or manual setting of vehicle type.

From the Datalist / Snapshot menu, click on **Real-Time Data** (real-time monitor).

On the screen for selecting automatic or manual setting of vehicle type, Select Auto or Manual.

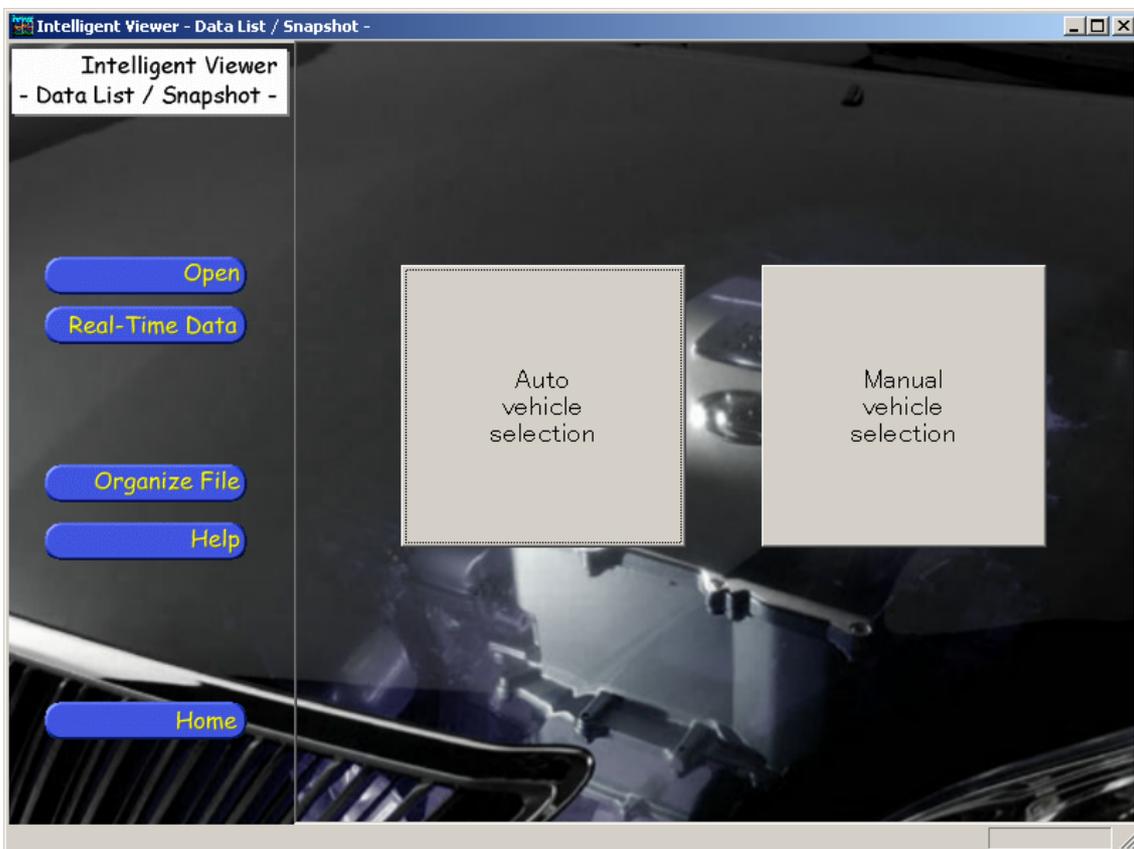
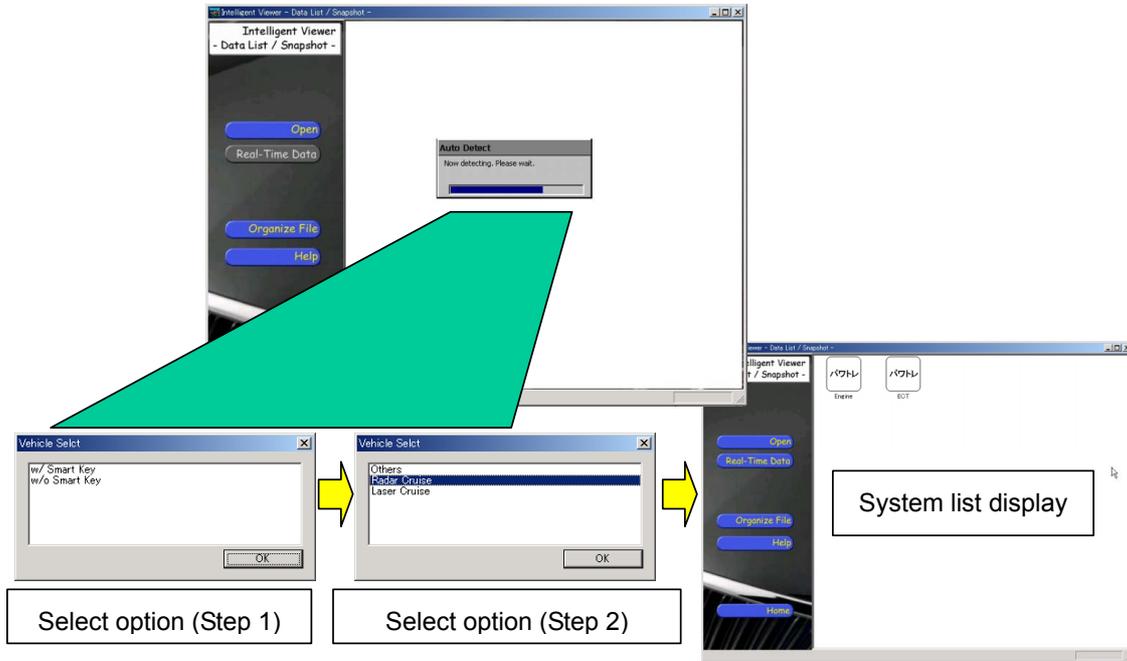


Fig. 6-1-1: Screen for Selecting Automatic or Manual Setting of Vehicle Type

**1 Automatic setting of vehicle type**

With automatic setting of vehicle type, “Vehicle Select” (selection of detailed vehicle related specifications) can be run a maximum of three times, after which the system list screen appears.



**Fig. 6-1-2: Operation Flow of Automatic Selection of Vehicle Type**

## 2 Manual setting of vehicle type

With manual setting of vehicle type, first carry out vehicle code selection and vehicle specification selection manually. Then “Vehicle Select” (selection of detailed vehicle related specifications) can be run a maximum of three times, after which the system list screen appears.

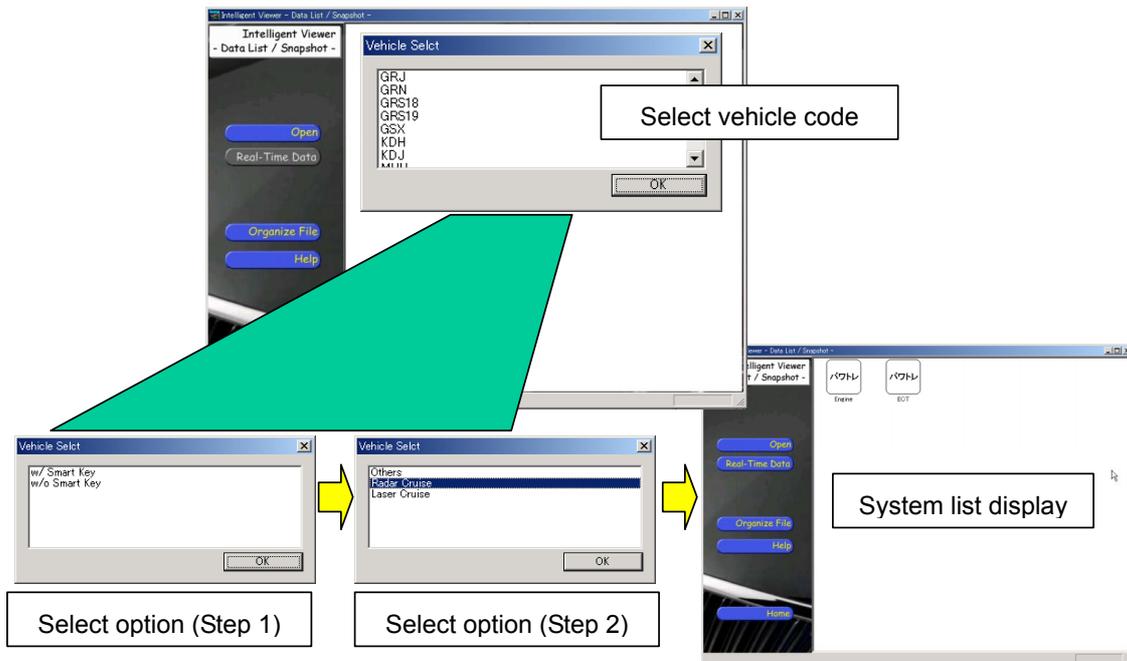


Fig. 6-1-3: Operation Flow of Manual Selection of Vehicle Type

## 6.2. Selecting system to be monitored

When setting automatic or manual selection of vehicle type, a search is performed of the vehicle's onboard systems.

A list of systems found in the search is displayed on the system select screen.



Fig. 6-2-1: System Select Screen

Double-click on the system to be monitored.

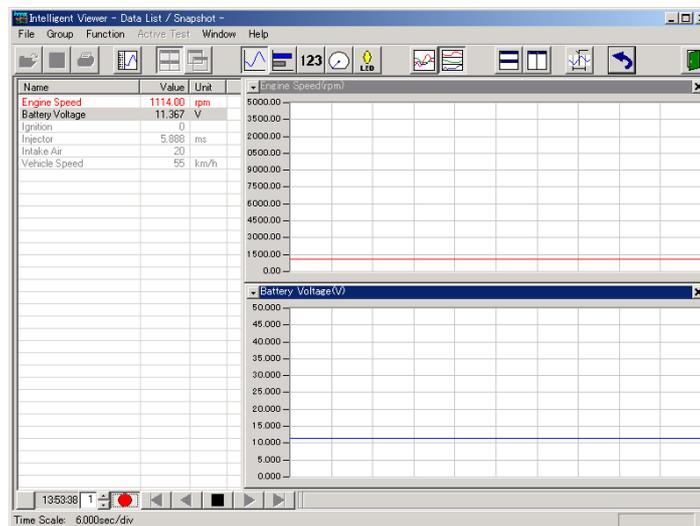


Fig. 6-2-2: PC Real-Time Monitor Screen

After a while, when the monitor is started up, the PC real-time monitor screen appears. Display detailed data by dragging and dropping the required signal names from the data display area to the graph display area.

The data display area initially shows "ALL Data".

### 6.3. Selecting and deleting signals to be monitored

Click  (signal reselect button) on the real-time monitor screen to bring up the signal display select dialog box.

The list of signals of the system (ECU) selected on the system select screen is the data monitor source list of the symbol select screen.

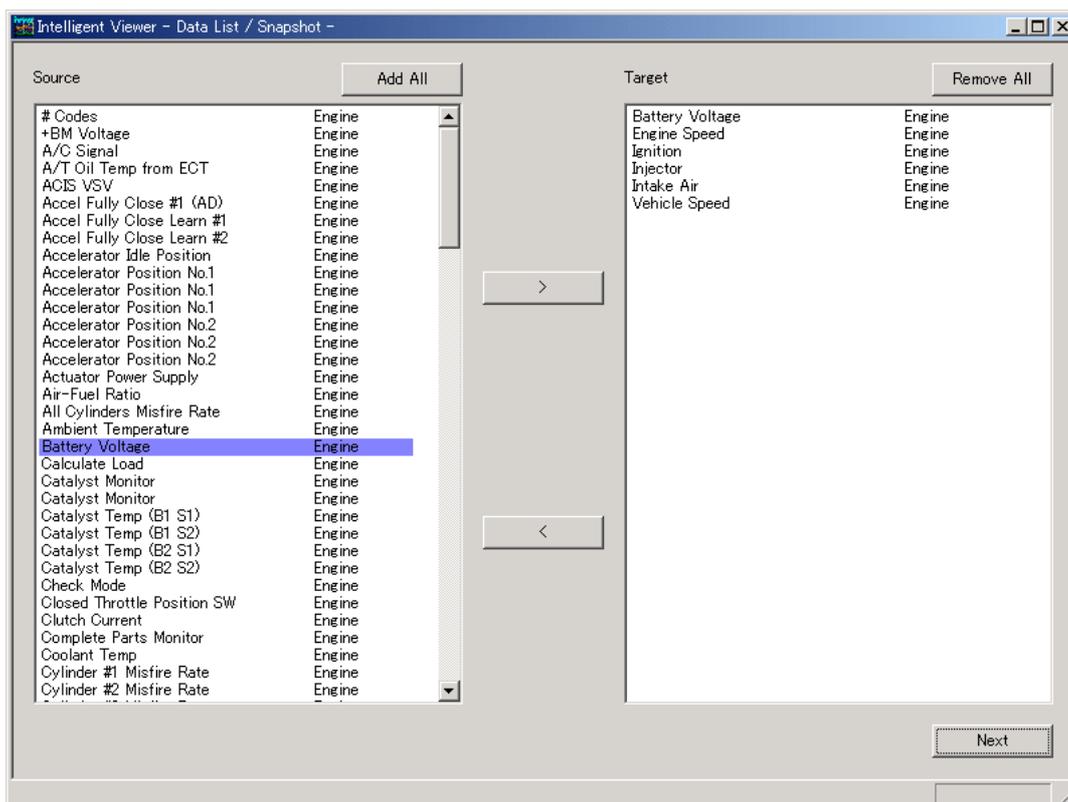


Fig. 6-3-1: Symbol Select Screen

#### 1 Selecting a signal

Select the signal in the source list to be monitored by focusing on it and pressing the > button, double-clicking the mouse, or clicking the space bar. The selected signal appears in the right-hand side measurement data target list. The Add All button selects all signals for monitoring.

#### 2 Canceling a signal selection

Unselect a signal you do not want to monitor from the target list by focusing on it and pressing the < button, double-clicking the mouse, or clicking the space bar. The unselected signal disappears from the measurement data target list. The Remove All button unselects all selected signals.

Click Next to move to the data display screen.

## 6.4. Real-time Monitor Measurement on Data Display Screen

The signal selected on the symbol select screen appears in the data display area of the data display screen.

Monitoring is usually carried out with Datalist / Snapshot, so to capture Snapshot data and save it in a file, carry out a combination of the following trigger measurement and manual measurement (a kind of manual trigger).

### 1 To start real-time monitor (manual trigger) measurement

Click  (record button) to start real-time monitor (Snapshot) measurement. The monitor measurement values are displayed graphically and accumulated simultaneously in the internal data queue.

Measurement is stopped manually or stops after the prescribed time, and the data is automatically saved.

Data is saved directly in the "Data" folder of the application root folder.

(Normally this is at C:\Program Files\Intelligent Viewer\DATA)

After the data is saved, only monitoring automatically restarts.

### 2 To carry out trigger setup

From the function menu, click on Trigger Setup to bring up the Trigger Setup dialog box.

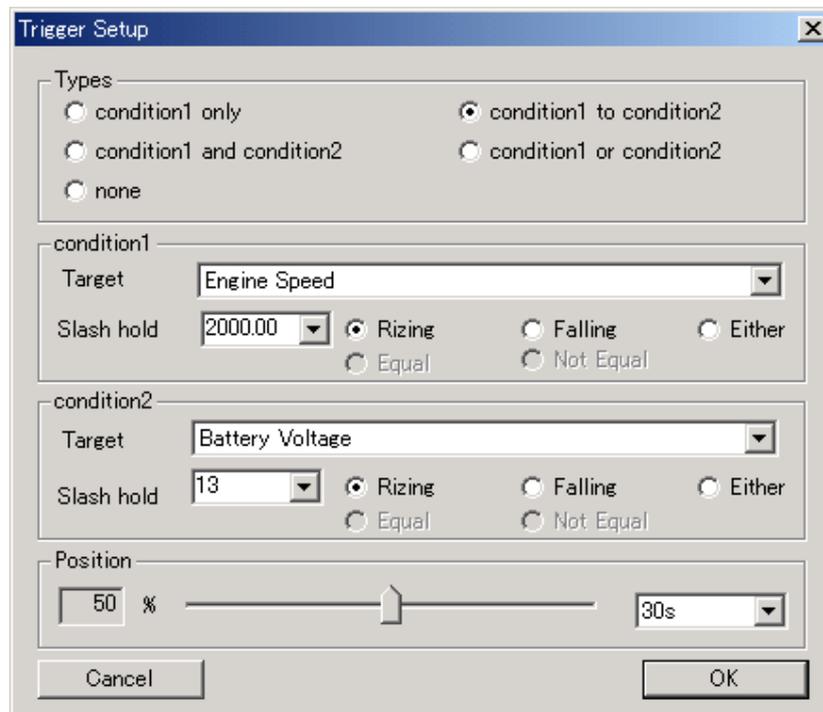


Fig. 6-4-1: Trigger Setup Dialog Box

Carry out trigger setup by a combination of final trigger conditions 1 and 2

condition1 only	Trigger is created when only condition 1 is established.
condition1 to condition2	Trigger is created when condition 1 is established followed by condition 2.
condition1 and condtion2	Trigger is created when condition 1 and condition 2 are established simultaneously.
condition1 or condition2	Trigger is created when condition 1 or condition 2 is established.
none	Parameter trigger measurement is not carried out. (manual measurement)

In condition 1 and condition 2, enter the trigger's established conditions.

Target	Selects the signal to be set by the trigger conditions. The signal selected in the symbol select screen can be selected from the combo-box.
Slash hold	Sets the threshold value of the subject data
Rising	Creates a trigger when the subject data moves from below to above the set threshold value. Enabled when non-pattern data is selected as the subject data.
Falling	Creates a trigger when the subject data moves from above to below the set threshold value. Enabled when non-pattern data is selected as the subject data.
Either	Creates a trigger whether a rise or a fall is established. Enabled when non-pattern data is selected as the subject data.
Equal	Creates a trigger when the set threshold and the subject data are equal. Enabled when pattern data is selected as the subject data.
Not Equal	Creates a trigger when the set threshold and the subject data are unequal. Enabled when pattern data is selected as the subject data.

When the trigger is created, operate the Position slider bar to set where in the queue to set the trigger position.

Also, select the overall maximum measurement time from the list to the right of the Position slider bar.

(Select from 5 sec, 15 sec, 30 sec, 1 min, 5 min, 10 min, 30 min.)

When you have finished changing the settings in the Trigger Setup dialog box, press the OK button to apply the changes.

When you return to the real-time data display screen, click  (record button) to set to trigger-ready status. (The display shows the button pressed down.)

Later, as soon as the trigger data creates a trigger, Snapshot measurement is automatically carried out. Once measurement is completed for the set time, data is automatically saved.

After the data is saved, monitoring restarts automatically and the trigger-ready status is cancelled.

### **3 To stop real-time monitor measurement**

Click  (Stop button) to stop real-time monitor measurement.

If you click the button during Snapshot measurement, data is automatically saved.

## 7. Utilities

### 7.1. Arrangement of files

You can organize (copy or delete) data files stored on Intelligent Tester II or PC.

Click **Organize File** button in the Datalist / Snapshot menu area to display the Organize File screen.

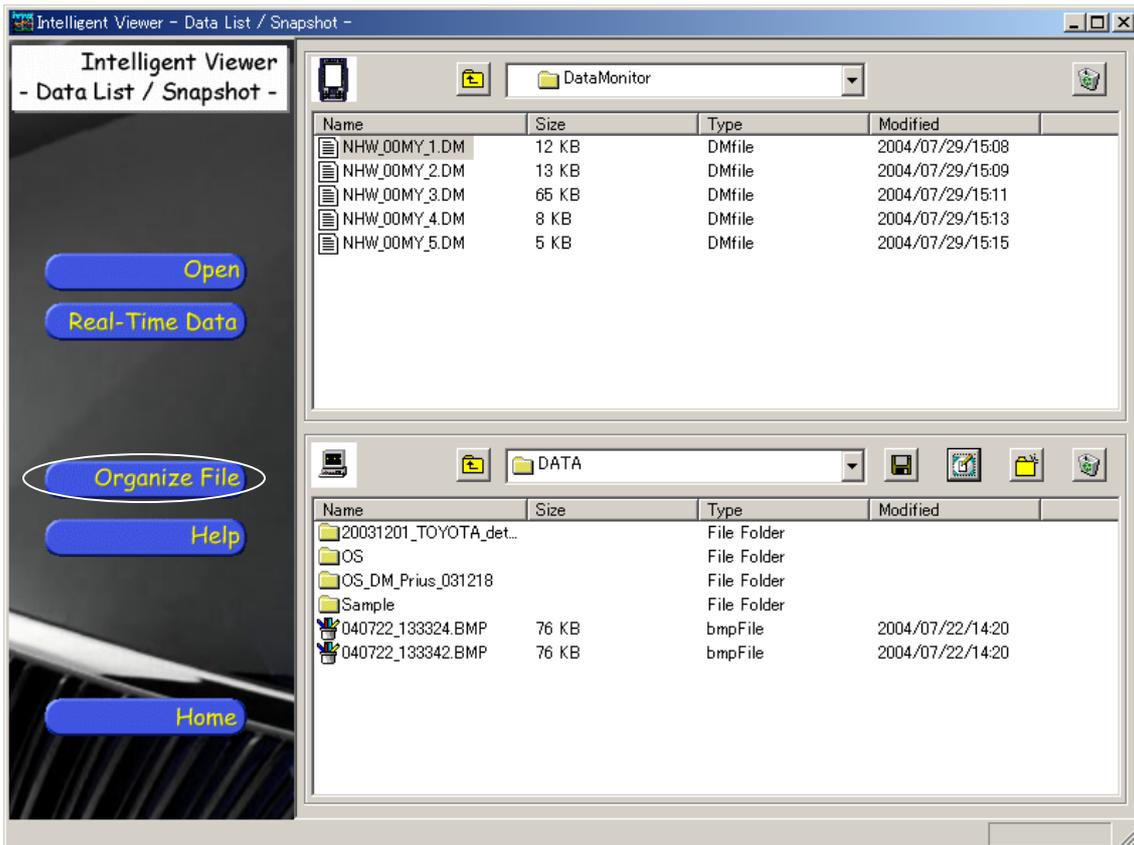


Fig. 7-1-1: Organize File Screen

Description of the shortcut icons:

Icon	Function	Description
	Up one level	Displays the next level up in the folder structure.
	Save on floppy disk	Copies selected files to floppy disks.
	Save on desktop	Copies selected file to the desktop.
	Create new folder	Creates new folders.
	Delete file	Deletes selected files.
	Select folder	Moves to another folder.

**1 To delete a file from Intelligent Tester II:**

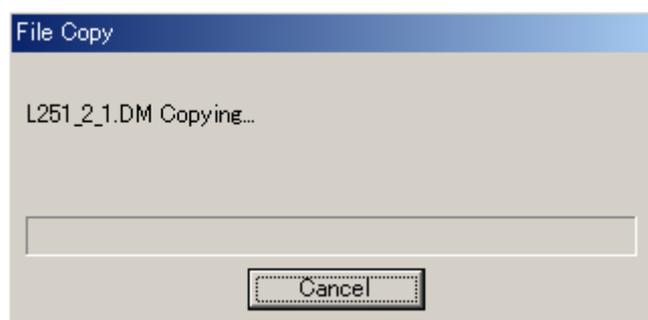
Select the file to be deleted and click the  (Delete file) button above the Intelligent Tester II file list to delete it. Please note that a file cannot be recovered once you delete it.

**2 To copy a file from Intelligent Tester II to the PC:**

Select the file to be copied and drag it to the PC file list.

The Copying progress indicator will appear and the file copying operation from Intelligent Tester II to the PC will start. (The time required to copy varies according to the file size and the Intelligent Tester II connection method.)

After the file has been copied, the copying progress indicator will disappear and the file will be displayed on the PC file list.



**Fig. 7-1-2: Progress Indicator**

**3 To delete a file from the PC:**

Select the file to be deleted and click the  (Delete file) button above the PC file list to delete it. Please note that a file cannot be recovered once you delete it.

**4 To copy a file from the PC to a floppy disk:**

Select the file to be copied and click the  (Save on floppy disk) button above the PC file list to copy it.

After operation of the floppy disk, check its contents to make sure that the file has been copied successfully.

**5 To copy a file from the PC to the desktop:**

Select the file to be copied and click the  (Save on desktop) button above the PC file list to copy it.

Make sure that the file is displayed on the desktop.

**6 To create a new folder on the PC:**

Click the  (Create new folder) button above the PC file list.

The Create New Folder dialog box will appear; input a folder name and then click the OK button to create the folder.



**Fig. 7-1-3: Create New Folder Dialog Box**

**Note: Files cannot be copied from the PC to Intelligent Tester II.**

## 7.2. Activating the Help function.

### 1 To activate the Help function:

Click the Help button to display the Help screen.

(Please install Acrobat-Reader for use this function.)



**Fig. 7-2-1: Help Button**

## 8. Quit

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Click  button in the Datalist / Snapshot menu area to exit.

(You can also exit the Datalist / Snapshot program by clicking the  (Close) button in the upper right corner of the screen.)