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## 1 Introduction

This document describes the K-Scan System for PC.

## 2 Overview

### 2 - 1 Environment

Item	Condition	Remarks
OS	Microsoft Windows XP	
Resolution	SVGA(800 x 600 ~ )	

Table 1 Software Requirements

### 2 - 2 System Overview

Figure 1 shows the system composition. The K-Scan gives instructions of Active Test, gathers and displays sensor values of the ECU.

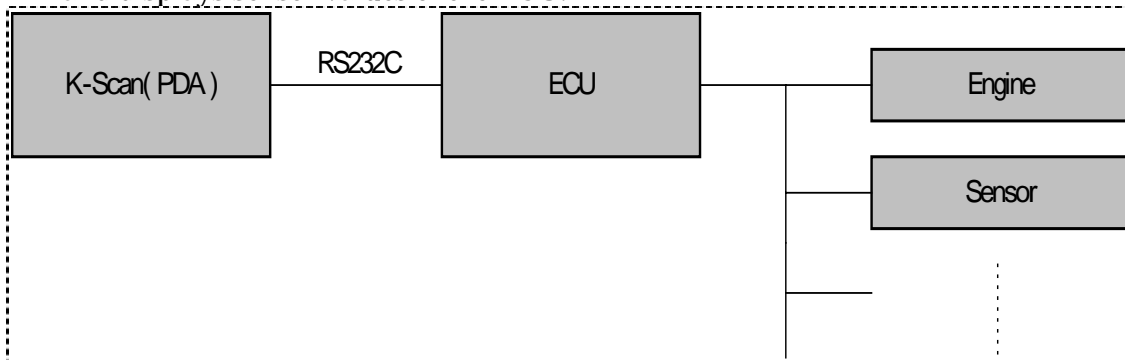


Figure 1 System Composition Chart

## 2 - 3 Installation

1. Execute 'Setup.exe' to show component setup wizard.
2. Click [Install] button in 'component install' screen to install 'Visual C++ Runtime Libraries(x86)'.
3. After installed the component, K-Scan setup wizard will be shown.
  - A) Click [Next] button in a 'Welcome to the K-Scan Setup Wizard' screen.
  - B) Select installation folder and user button in a 'Select Installation Folder' screen, then click [Next].
  - C) Click [Next] button in a 'Confirm Installation' screen to start installing.
  - D) Click [Close] button in a 'Confirm Installation' screen to finish.

## 2 - 4 Folder Composition

[C:¥Program Files¥K-Scan]

K-Scan.exe	• • • Execute File
K-Scan.ini	• • • Main Setting File
GraphSetting.txt	• • • Graph Setting File
MakerCodeSetting.txt	• • • Maker Code Setting File
ActiveTestSetting.txt	• • • Active Test Setting File
PCodeSetting.csv	• • • PCode Setting File
K-Scan.pdf	• • • User Manual(this document)

[¥Image]

English.bmp	• • • American National Flag for the Language Screen.
Italy.bmp	• • • Italian National Flag for the Language Screen
French.bmp	• • • French National Flag for the Language Screen
German.bmp	• • • German National Flag for the Language Screen
Spanish.bmp	• • • Spanish National Flag for the Language Screen
Portuguese.bmp	• • • Portuguese National Flag for the Language Screen
Logo.bmp	• • • Logo Image for the Title Screen
ActiveTest_ID**.bmp	• • • Active Test Images.

[¥Log] • • • Folder for Log

[¥DLL]

English.dll	• • • DLL File for English
Italy.dll	• • • DLL File for Italy
French.dll	• • • DLL File for French
German.dll	• • • DLL File for German
Spanish.dll	• • • DLL File for Spanish
Portuguese.dll	• • • DLL File for Portuguese

### 3 Common Function

#### 3 - 1 System Menu

Following table shows the system menu composition.











Group	Name	Overview	Link	
File	Open Log File	Show common dialog to open a log file. [Available Screen] • 4 - 8 Log File View	4 - 8	
	Save	Show common dialog to save screen data. [Available Screen] • 4 - 3 Data View • 4 - 6 Diagnosis	-	
	Print	Show common dialog to print screen data or screen image. [Available Screen] • 4 - 2 Data View Large • 4 - 3 Data View • 4 - 4 Graph View • 4 - 6 Diagnosis • 4 - 8 Log File View	-	
	Print Preview	Display print preview window. [Available Screen] • 4 - 2 Data View Large • 4 - 3 Data View • 4 - 4 Graph View • 4 - 6 Diagnosis • 4 - 8 Log File View	-	
	Print Setting	Show common dialog to set printer configuration.	-	
	Exit	Exit the application.	-	
	View	Title View	Move to Title screen.	4 - 1
		Data View Large	Move to Data View Large Screen.	4 - 2
		Data View	Move to Data View Screen.	4 - 3
		Graph View	Move to Graph View Screen.	4 - 4
Active Test		Move to Active Test Screen.	4 - 5	
Diagnosis		Move to Diagnosis Screen.	4 - 6	
Data Recording		Move to Data Recording Screen.	4 - 7	
Setting	Log File View	Move to Log File View Screen.	4 - 8	
	View Setting	Set a channel data.	4 - 2 - 1	
		Show a dialog according to the current screen.	4 - 4 - 1 4 - 7 - 1 4 - 8 - 1	
		[Available Screen] • 4 - 2 Data View Large Select Data Items • 4 - 4 Graph View Graph Setting • 4 - 7 Data Recording Select Data Items		










• 4 - 8 Log File View			
Log File View Setting			
Transfer Setting	Show Transfer Setting Dialog.		0
Language Setting	Show Language Setting Dialog.		4 - 1 0
Data Recording Setting	Show Data Recording Setting Dialog.		4 - 7 - 2
[Available Screen]			
• 4 - 7 Data Recording			
Throttle Setting	Display Throttle Setting Dialog.		4 - 1 1
ECU Information	Show ECU Information Dialog.		4 - 1 2
VIN Setting	Show VIN Setting Dialog.		4 - 1 3
Unit	Select a unit mode. SI: (Deg C, kPa ) USA: (Deg F, inHg)		-
Help	Help	Display this document.	-
	About K-Scan	Display About K-Scan Dialog.	4 - 1 4

### 3 - 2 Toolbar

Following table shows the toolbar composition.

And some buttons that are only available in particular screens.

Group	Icon	Name	Overview
File		Open Log File	Show common dialog to load a log file.  [Available Screen] • 4 - 8 Log File View
		Save	Show common dialog to save screen data.  [Available Screen] • 4 - 3 Data View • 4 - 6 Diagnosis
		Print	Show common dialog to print screen data or screen image. [Available Screen] • 4 - 2 Data View Large • 4 - 3 Data View • 4 - 4 Graph View • 4 - 6 Diagnosis • 4 - 8 Log File View
View		Title View	Move to Title View screen.
		Data View Large	Move to Data View Large Screen.
		Data View	Move to Data View Screen.
		Graph View	Move to Graph View Screen.
		Active Test	Move to Active Test Screen.
		Diagnosis	Move to Diagnosis Screen.
		Data Recording	Move to Data Recording Screen.

		Log File View	Move to Log File View Screen.
Setting		View Setting	Set a channel data. Show a setting dialog according to the current screen.
			[Available Screen] <ul style="list-style-type: none"> <li>• 4 - 2 Data View Large Select Data Items</li> <li>• 4 - 4 Graph View Graph Setting</li> <li>• 4 - 7 Data Recording Select Data Items</li> <li>• 4 - 8 Log File View Log File View Setting</li> </ul>
		Throttle Setting	Show Throttle Setting Dialog.
		ECU Information	Show ECU Information Dialog.
		VIN Setting	Show VIN Setting Dialog.
		Data Recording Setting	Show Data Recording Setting Dialog.
			[Available Screen] <ul style="list-style-type: none"> <li>• 4 - 7 Data Recording</li> </ul>
Operation		Unit Switch	Switch unit mode. SI: (Deg C, kPa ) USA: (Deg F, inHg)
		History Clear	Clear historic DTC errors.
			[Available Screen] <ul style="list-style-type: none"> <li>• 4 - 6 Diagnosis</li> </ul>
Help		Help	Show About K-Scan Dialog.

### 3 - 3 Status Bar

Following table shows the status bar compositions.

Unit Mode	Display 'SI' or 'USA'. It is possible to switch the unit mode by clicking this area in all screens. Remarks that only following screens use the unit mode. <ul style="list-style-type: none"> <li>• 4 - 2 Data View Large</li> <li>• 4 - 3 Data View</li> <li>• 4 - 4 Graph View</li> <li>• 4 - 7 Data Recording</li> </ul>
ECU Connection	Display used COM port number and ECU connection state.

## 4 Specification Function

### 4 - 1 Title View

This is the start screen of the application.

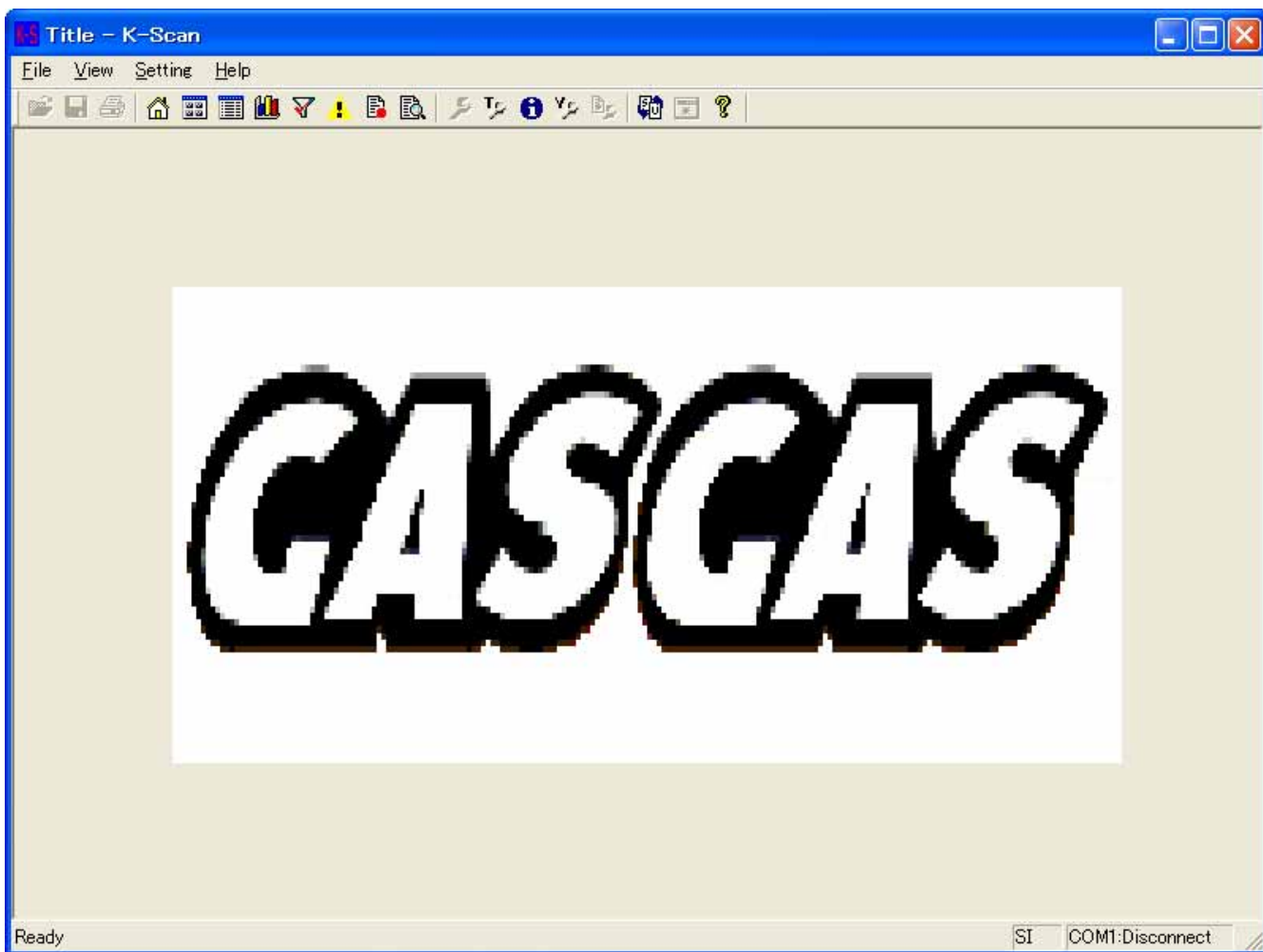


Figure 2 Title View Screen

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1	Image	Display a logo image.
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4 - 2 Data View Large

This screen is to display sensor values of 8 Data Items and 3 fixed Data Items.

3 fixed Data Items, Engine Temperature, Engine Speed and Intake Air Temperature, are displayed by meters and values.

You can select 8 Data Items using Select Data Items Dialog that is shown by clicking View Setting menu, or toolbar button. If a selected Data Item does exist on ECU, 'No Item' will be shown.

The application remembers selected Data Items and save it to the setting file when you exit application. Engine Speed meter is updated by 0.1 seconds and other Data Items are update by 0.5 seconds.

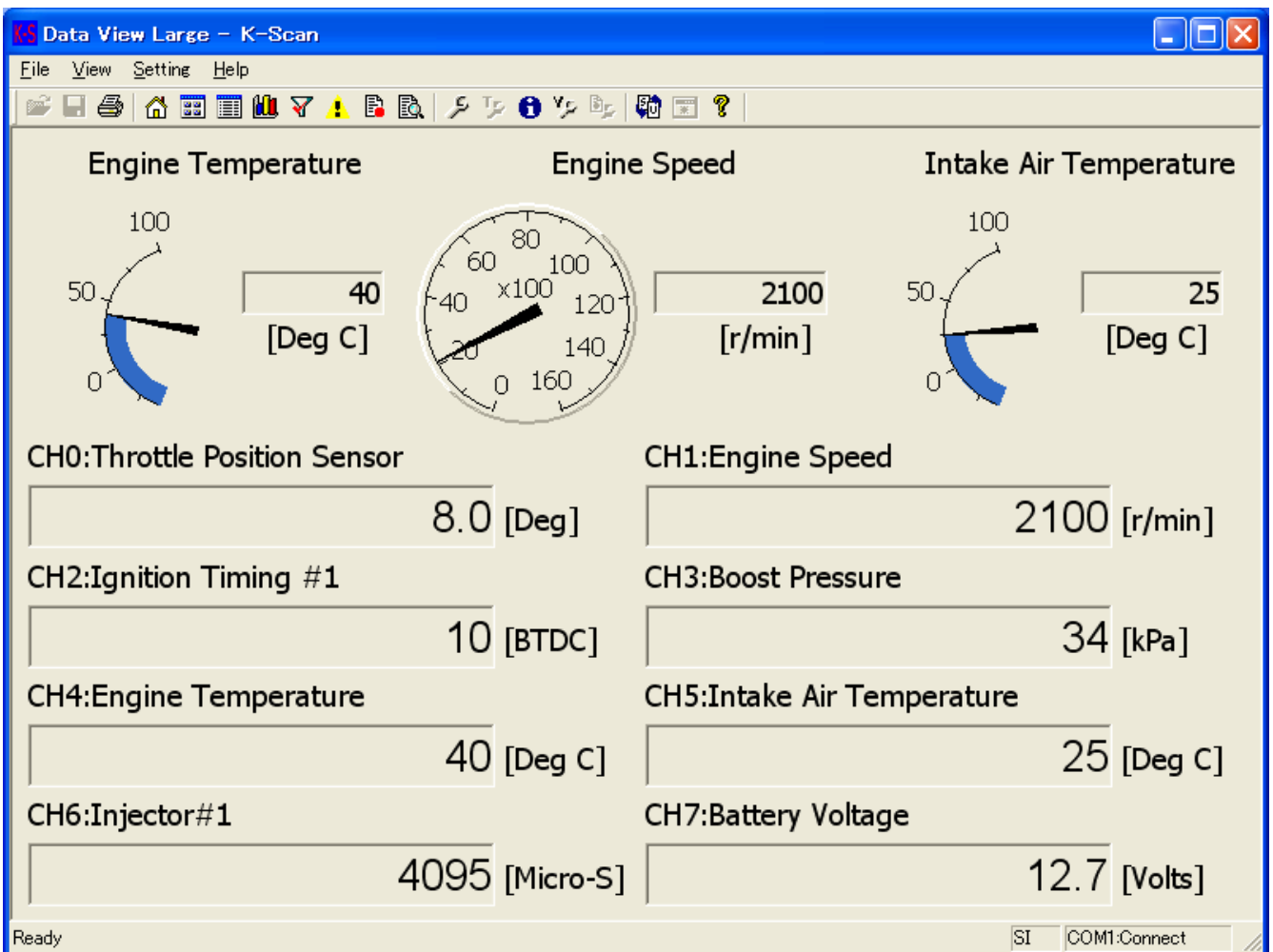


Figure 3 Data View Large Screen

1	Engine Temperature	Display Data Item 「Engine Temperature」 by meter and value.
2	Engine Speed	Display Data Item 「Engine Speed」 by meter and value.
3	Intake Air Temperature	Display Data Item 「Intake Air Temperature」 by meter and value.
4	Selected Data Item	Display selected Data Item by value.
5	[Toolbar] View Setting button	Show Select Data Item dialog to select 8 Data Items. (See 4 - 2 - 1 Select Data Items )
6	[Toolbar] Print button	Print a screen image.
7	[Toolbar] Unit Switch button	Switch unit mode.
8	When this screen is displayed	When the ECU is not connected, the ECU connection will be started. If failed to connect to the ECU, the message 7 will be shown(See 5 - 1 Message List).

#### 4 - 2 - 1 Select Data Items

This dialog is to select 8 Data Items.

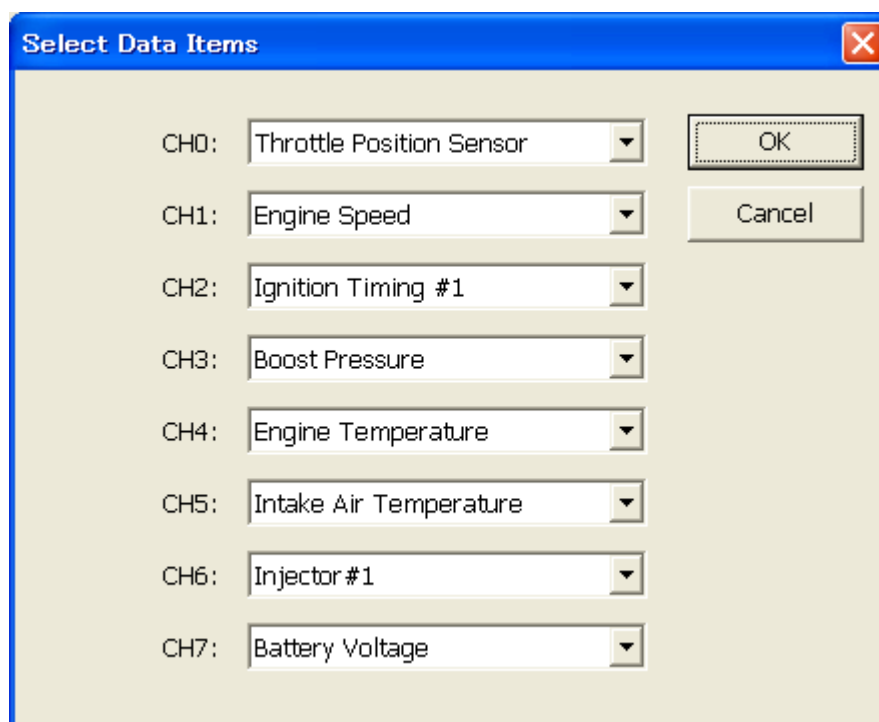


Figure 4 Select Data Items Dialog

1	CH0 - CH7 combo box	Select a Data Item from list. The list is created when this dialog is created.
2	[OK] button	Save selection of Data Items and close this dialog.
3	[Cancel] button	Cancel selection of Data Items and close this dialog.

4 - 3 Data View

This screen is to display sensor values of Data Items. Sensor values are updated by every 0.5 seconds.

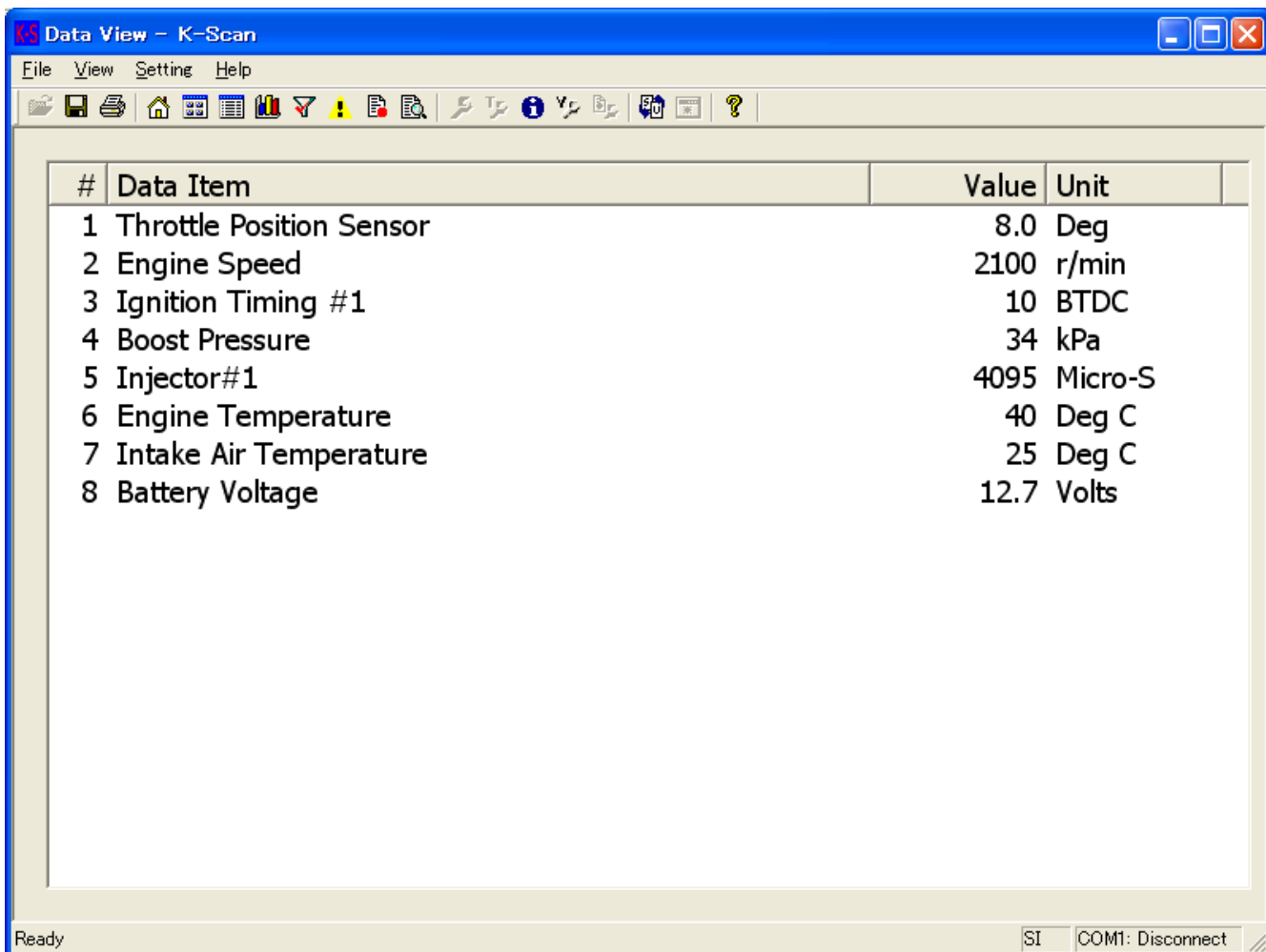


Figure 5 Data View Screen

1	List box	Display all Data Items that the ECU corresponds. #: Index Data Item: name of each Data Item. Value: sensor values of each Data Item. Unit: units of each Data Item.
2	[Toolbar] Save button	Save a screen data as csv format file.
3	[Toolbar] Print button	Print a screen data.
4	[Toolbar] Unit Switch button	Switch unit mode.
5	When this screen is displayed	When the ECU is not connected, the ECU connection will be started. If failed to connect to the ECU, the message 7 will be shown(See 5 - 1 Message List).

### 4 - 4 Graph View

This function is to display sensor values by graphs. Graphs are updated every 0.1 seconds. You can select 8 Data Items using Graph Setting Dialog that is shown by clicking 'View Setting' menu, or toolbar button. You can also select a type of graph, parallel and overlay, using Graph Setting Dialog. If you select less than 8 Data Items and parallel view mode, size of graphs will be automatically adjusted.

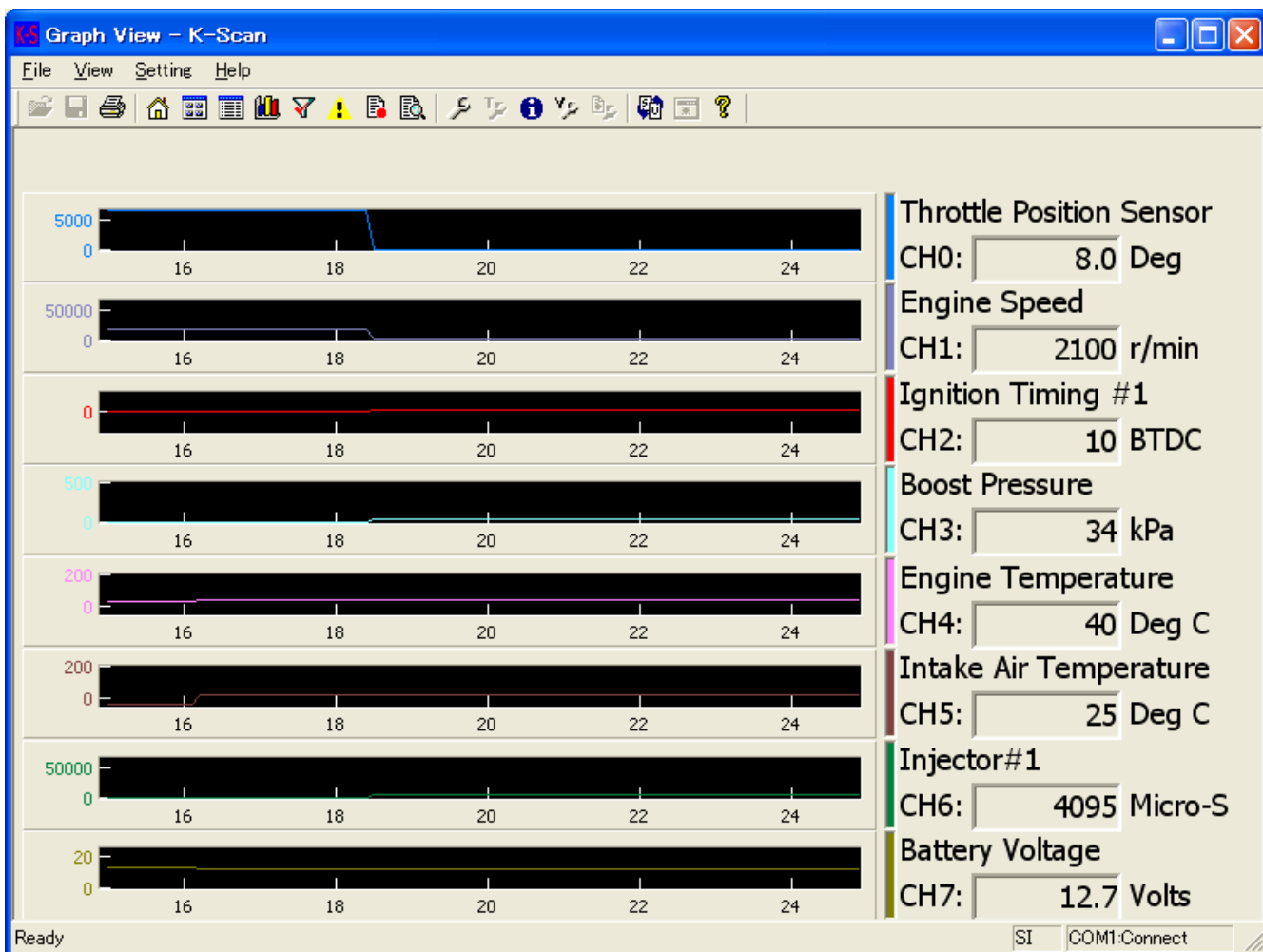


Figure 6 Graph View(Parallel) Screen

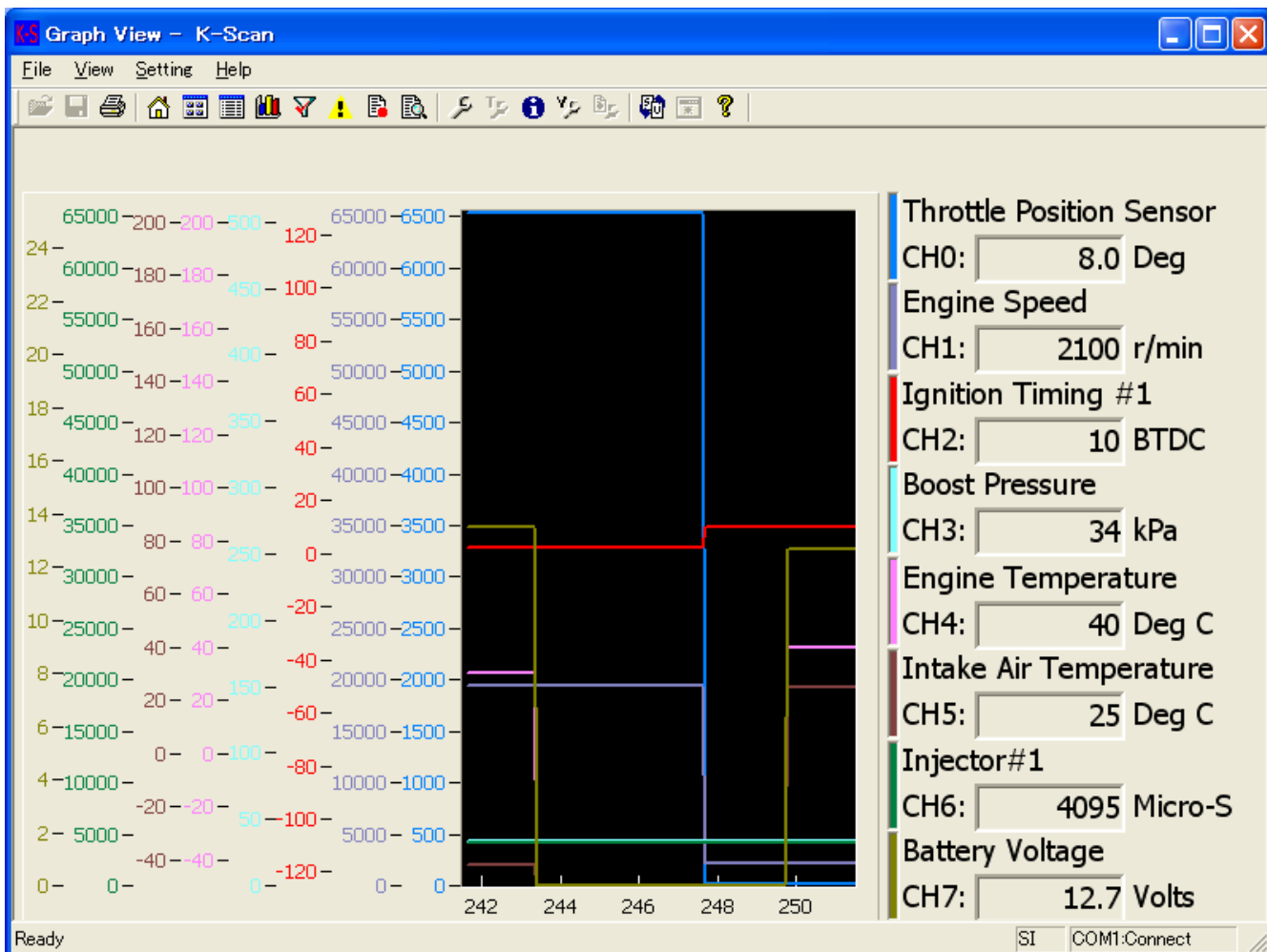


Figure 7 Graph View(Overlay) Screen

1	Graph	Display sensor values of Data Items by graphs. These graphs keep sensor values for 10 seconds. Left part of the graph will be discarded and the other parts will be shifted to the left after 10 seconds. These graphs will be cleared when you move to other screens.
2	Selected Data Item	Display a current value of Data Item.
3	[Toolbar] Print	Print a screen image.
4	[Toolbar] View Setting button	Show Graph Setting dialog. (See 4 - 4 - 1 Graph Setting)
5	[Toolbar] Unit Switch ボタン	Switch unit mode.
6	When this screen is displayed	When the ECU is not connected, the ECU connection will be started. If failed to connect to the ECU, the message 7 will be shown(See 5 - 1 Message List).

## 4 - 4 - 1 Graph Setting

This dialog is used to set graph parameter.

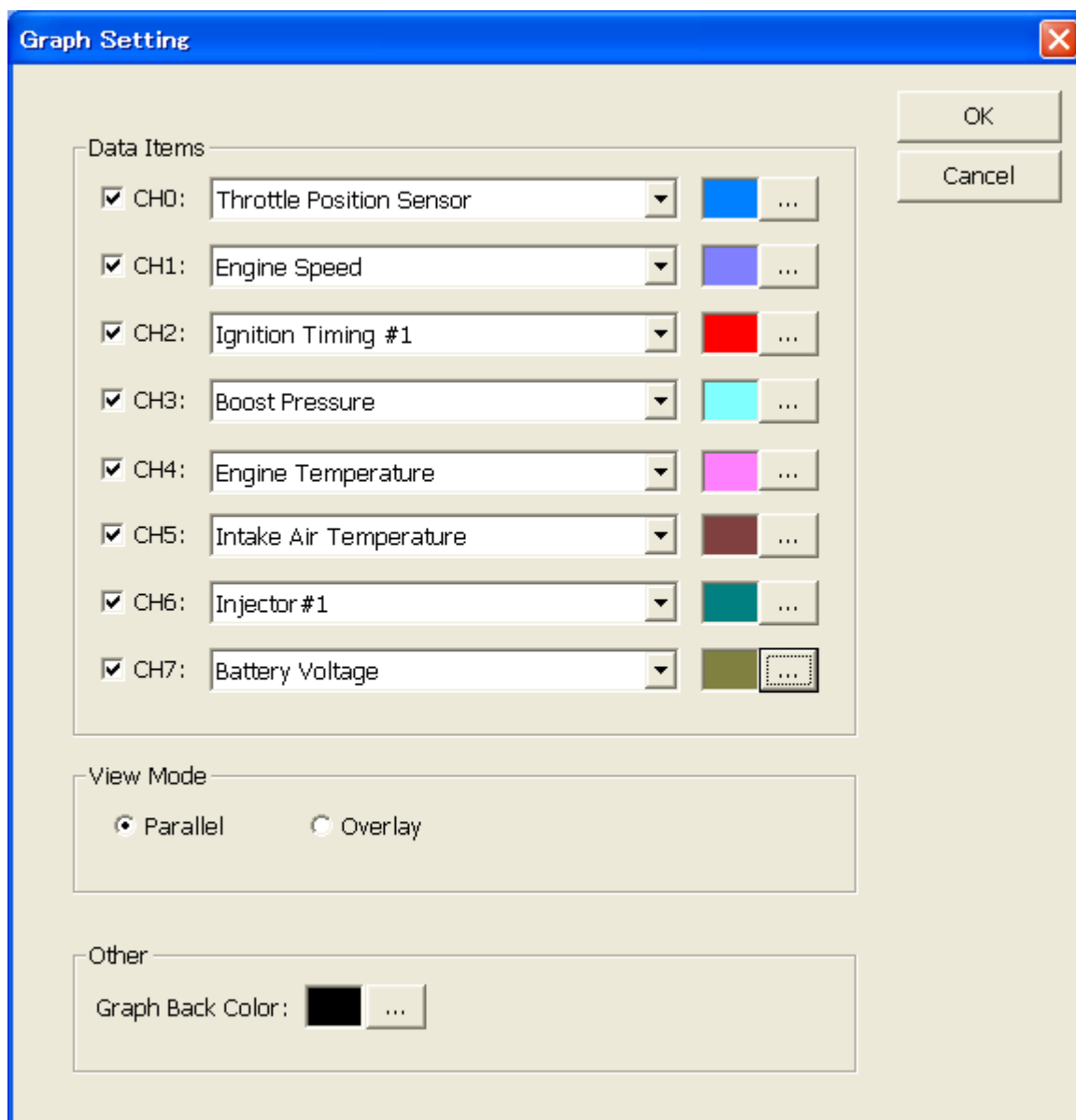


Figure 8 Graph Setting Dialog

1	Data Items Check box	Set a channel to be displayed or not. Checked channels will be displayed on the graph.
2	Data Items Combo box	Select Data Item of the channel.
3	Data Items [...] button	Select plot color of the channel.
4	View Mode	Select a view mode. Parallel: Each channel will be displayed in a separate graph. Overlay: All channels will be displayed in one graph.
5	Graph Back Color	Select a back color of a plot area.
6	[OK]ボタン	Save settings and close this dialog.
7	[Cancel]ボタン	Cancel settings and close this dialog.

4 - 5 Active Test

This function is to execute Active Test items. There are 8 Data Items in one page, and you can scroll page by clicking [<<] and [>>] buttons. You cannot click any button during Active Test, except [Stop] button.

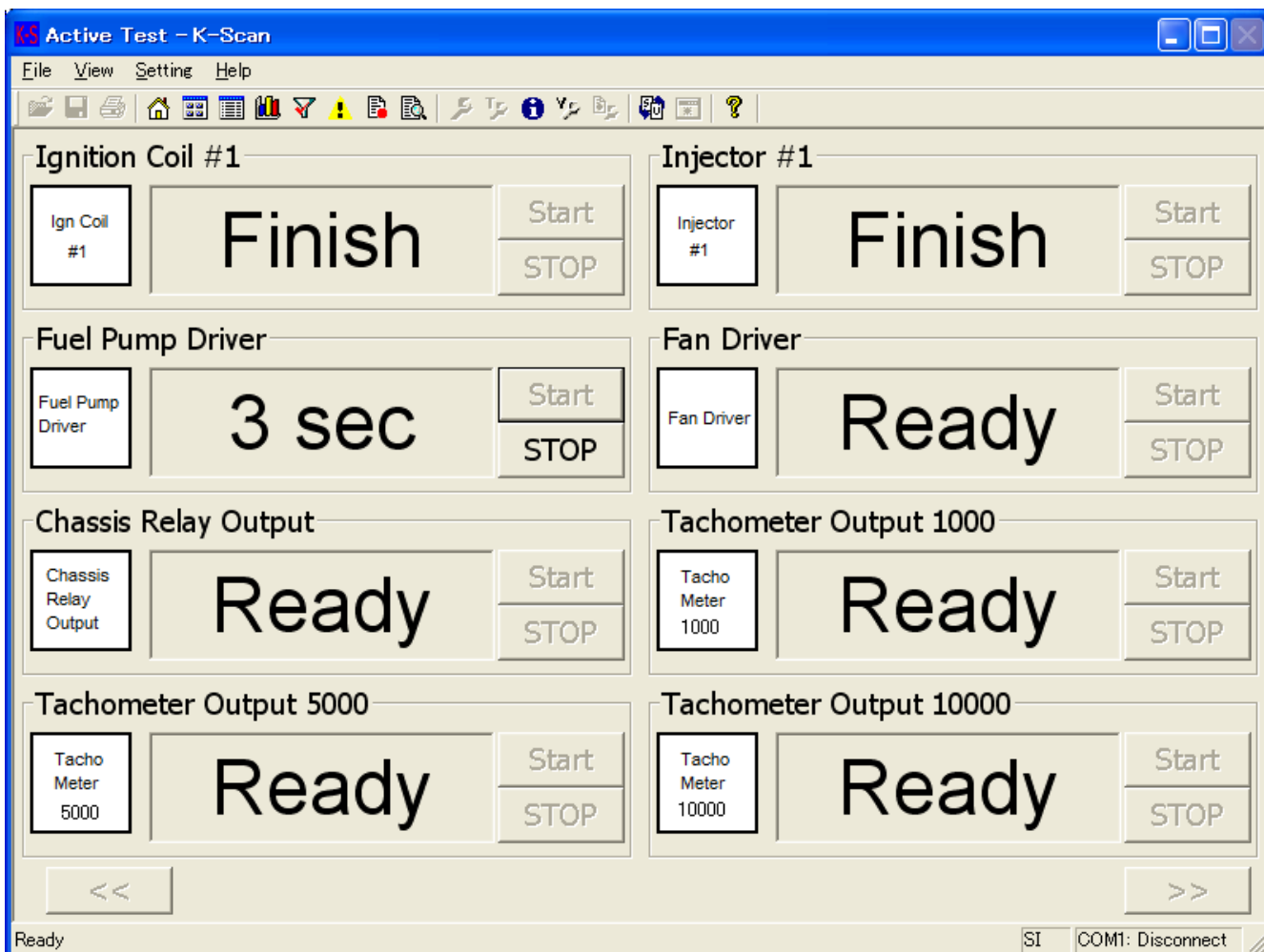


Figure 9 Active Test Screen

1	Active Test Item	There are 8 Data Items in one page, and you can scroll page to display all test items by clicking '<<' and '>>' buttons.
2	Icon	Display Active Test image.
3	State text box	Display operational information. <ul style="list-style-type: none"> <li>• 'Ready' Active Test has not been done.</li> <li>• 'Finish' Active Test has already been done.</li> <li>• 'Running...' or 'XXX Sec' Active Test is running now.</li> </ul>
4	When Active Test Error is occurred	If failed to connect to the ECU while running Active Test, the message 7 will be shown(See 5 - 1 Message List) and Active Test state becomes 'Ready'.
5	[Start] button	Start Active Test.
6	[Stop] button	Stop Active Test.
7	[<<] button	Move to previous page.
8	[>>] button	Move to next page.
9	When this screen is displayed	When the ECU is not connected, the ECU connection will be started. If failed to connect to the ECU, the message 7 will be shown(See 5 - 1 Message List).

4 - 6 Diagnosis

This function is to display DTC (Data Trouble Code) of the ECU.

This screen displays DTC errors by 2 list-boxes, to show two types of DTC error, current error and historic error.

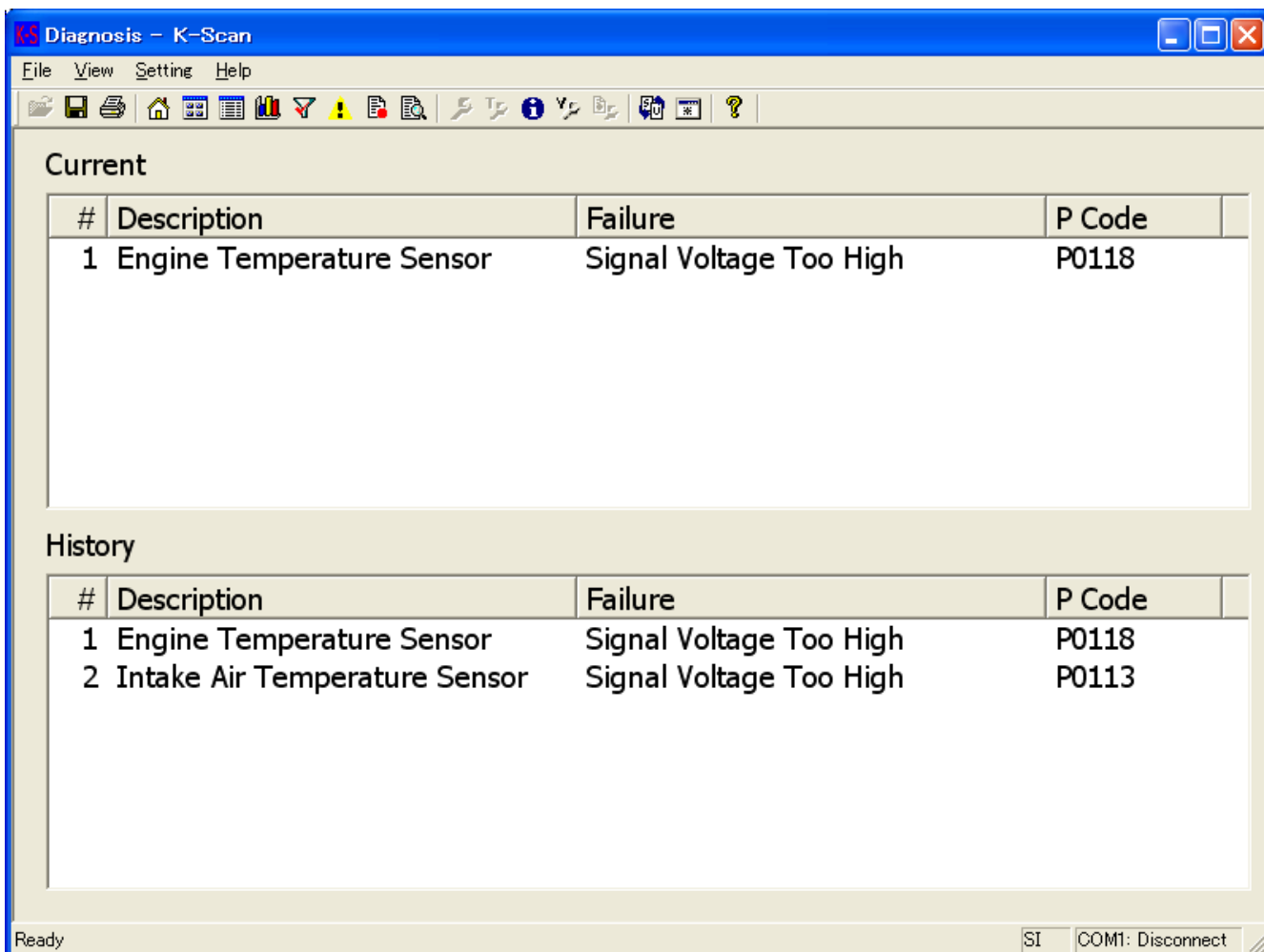


Figure 10 Diagnosis Screen

1	Current list box	Display current DTC errors. #: Index Description: DTC Description Failure Type: Failure Type name P Code: P Code
2	History list box	Display historic DTC errors. #: Index Description: DTC description. Failure Type: Failure Type name P Code : P Code
3	[Toolbar] Save button	Save a screen data as csv format file.
4	[Toolbar] Print button	Print a screen data.
5	[Toolbar] History Clear	Clear historic DTC errors. When you clicked the button, the Message 14 will be shown( See the 5 - 1 Message List). If you select 'Yes' button, historic errors are cleared. But if the application failed to clear historic errors, the Message 15 will be shown (See the 5 - 1 Message List).
6	When this screen is displayed	When the ECU is not connected, the ECU connection will be started. If failed to connect to the ECU, the Message 7 will be shown(See the 5 - 1 Message List).

4 - 7 Data Recording

This function is to record sensor values of 8 Data Items.

You can select 8 Data Items using Select Data Items Dialog that is shown by clicking 'View Setting' menu or toolbar button. You can also give the file name, recording time and trigger setting using Data Recording Setting Dialog that is shown by clicking Data Recording Setting menu or toolbar button.

If there is no trigger, the recording will be started after the start button clicked. Else if there is a trigger, the recording will be started after the trigger taken. After finishing the recording, the Message17 will be shown(See the 5 - 1 Message List).

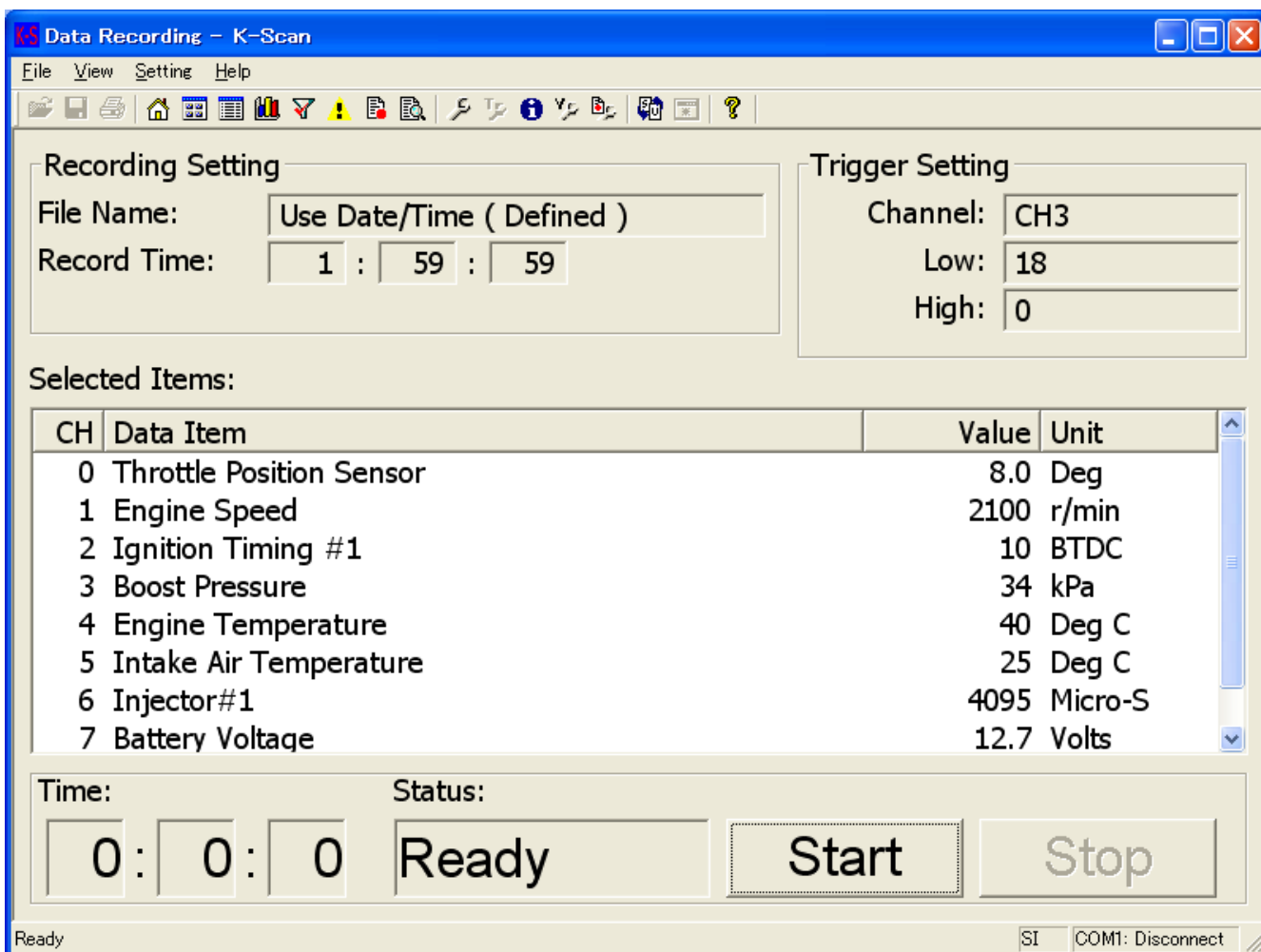


Figure 11 Data Recording Screen

1	List box	Display 8 Data Items. CH: Index of Channel. Data Item: name of each Data Item. Value: sensor values of each Data Item. Unit: units of each Data Item.
2	File Name	Display a filename. When 'Use Date/Time' is displayed, the filename is created by date and time before start recording. (A filename will be given such as 'LOG2007_Jan_01_12_00_00.csv')
3	Record Time	Display a record time. If the record time is '00:00:00', it will works as 'Manual Stop Mode'. The recording will be continued till the Stop button is clicked.
4	Channel	Display a selected trigger channel. If there is no trigger, blank will be displayed.
5	Low	Display the limit value of low-level trigger. When sensor value of the Data Item becomes less than the limit value, the recording will be started.
6	High	Display the limit value of high-level trigger. When sensor value of the Data Item becomes more equal than the limit value, the recording will be started.
7	Time	Display an elapsed time of the recording.
8	State	Display three recording state. 1. Ready Before click a start button. 2. Waiting Waiting a trigger. 3. Recording Recording sensor values.
9	[Toolbar] View Setting button	Show Select Data Items Dialog. ( See 4 - 7 - 1 Select Data Items )
10	[Toolbar] Recording Setting button	Show Data Recording Setting Dialog. ( See 4 - 7 - 2 Data Recording Setting )
11	[Start] button	Start recording sensor values. If there is a trigger, 'Waiting' is displayed. After the trigger is taken, 'Recording' will be displayed and the recoding will be started.
12	[Stop] button	Stop recording or waiting.
13	When this screen is displayed	When the ECU is not connected, the ECU connection will be started. If failed to connect to the ECU, the Message 7 will be shown See the 5 - 1 Message List).

## 4 - 7 - 1 Select Data Items

This dialog is to select 8 Data Items.

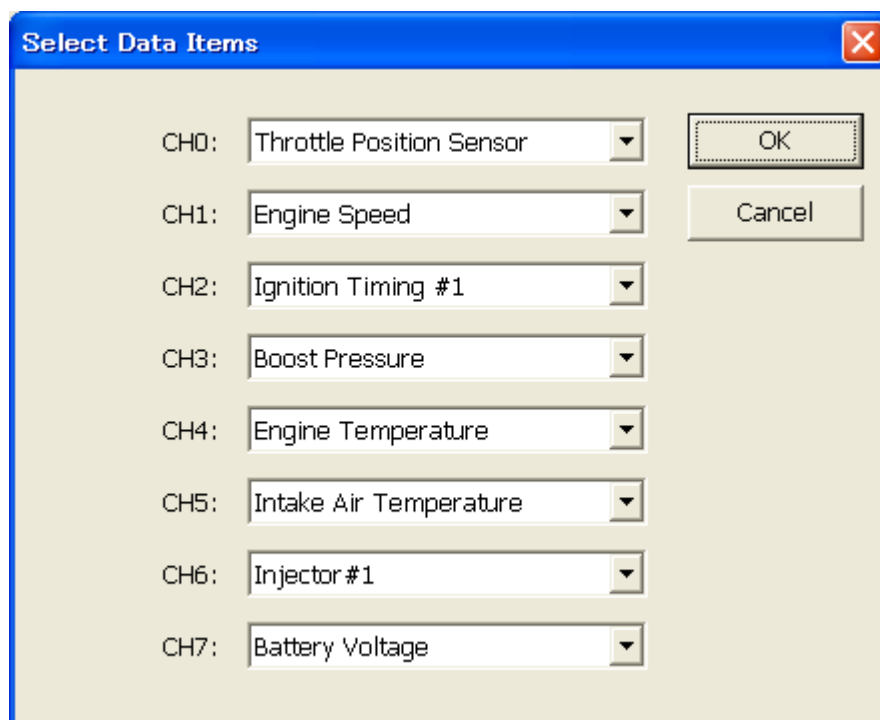


Figure 12 Select Data Items Dialog

1	CH0 - CH7 combo box	Select a Data Item from a list. The list is created when this dialog is created.
2	[OK] button	Save selection of Data Items and close this dialog.
3	[Cancel] button	Cancel selection of Data Items and close this dialog.

## 4 - 7 - 2 Data Recording Setting

This dialog is used to set Data Recording settings.

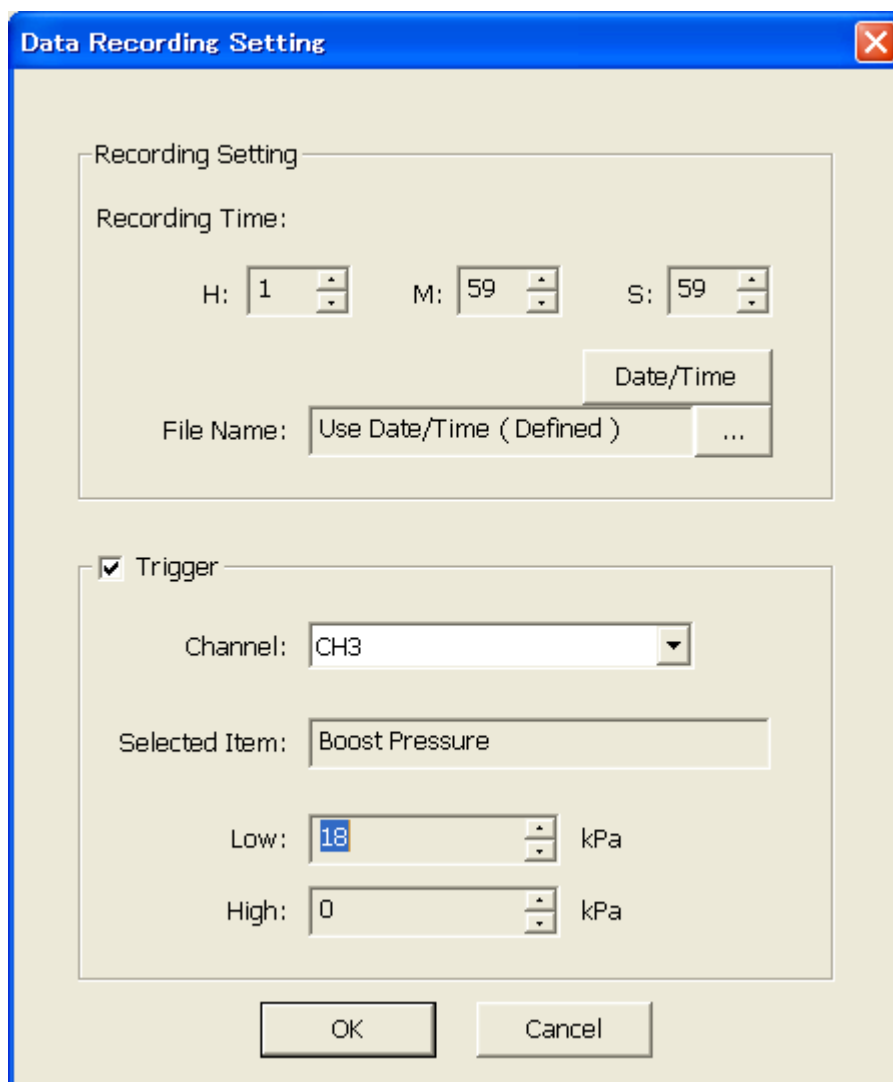


Figure 13 Data Recording Setting Dialog

1	Recording Time	Set the record time (H: hour M: minute S: second) by spin controls.
2	File Name	Display a file name.
3	[Date/Time] button	Set the filename by date and time. 'Use Date/Time' will be shown.
4	[...] button	Show a dialog to set the file name.
5	Trigger check box	Set the trigger mode enable or not.
6	Channel	Set a channel to a trigger. It is possible to select 'CH0' - 'CH7'.
7	Selected Item	Display the Data Item names of the selected channel.
8	Low	Set the low-level trigger value by a spin control. If the value is 0, the trigger will be ignored.
9	High	Set the high-level trigger value by a spin control. If the value is 0, the trigger will be ignored.
10	[OK] button	Save settings and close this dialog.
11	[Cancel] button	Cancel settings and close this dialog.

4 - 8 Log File View

This function is to display graphs of sensor values in a log file created by Data Recording function of this application or K-Scan(PDA) application. You can open a log file using common dialog that is shown by clicking 'View Setting' menu, or toolbar button.

You can also select a type of graph, parallel or overlay, using Graph Setting Dialog. If you select less than 8 Data Items and parallel view mode, size of graphs will be automatically adjusted.

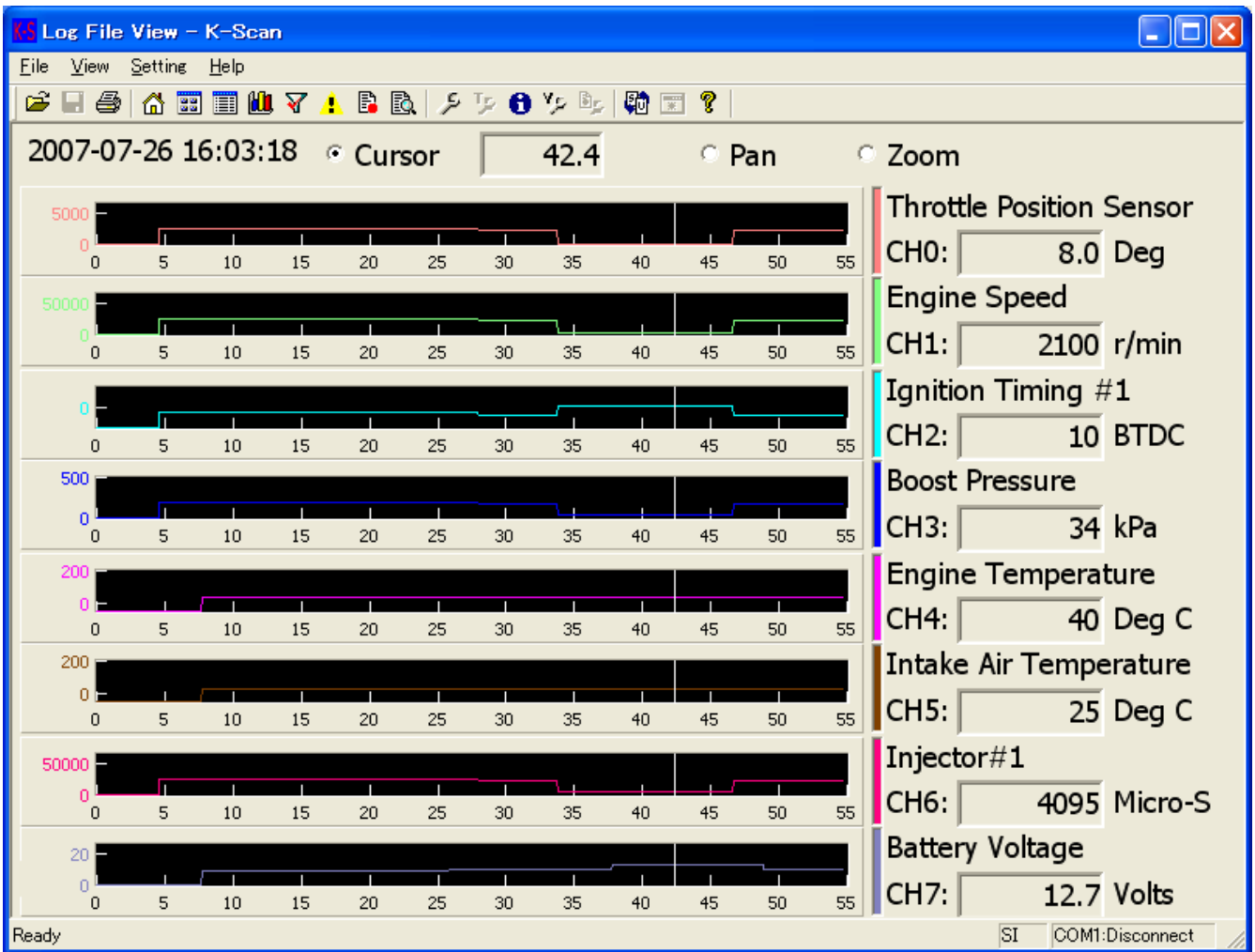


Figure 14 Log File View(Parallel) Screen

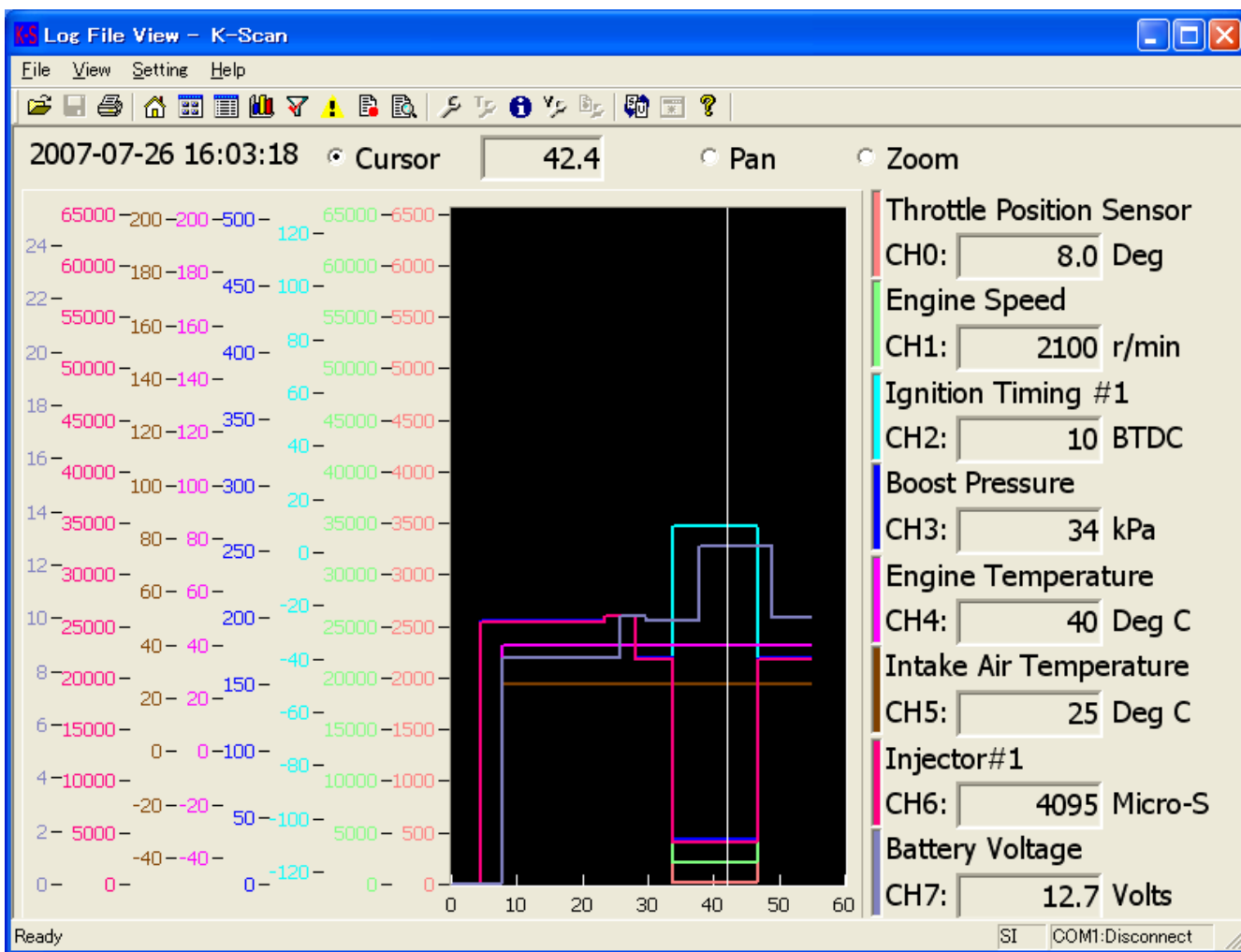


Figure 15 Log File View(Overlay) Screen

1	Date/Time	Display date and time in a log file.
2	Graph	Display sensor values of Data Items. There is no limitation to the x-axis that means time span.
3	Operation Mode	Set mouse operation mode on graphs. When [Zoom] is selected, plot areas of graphs will be initialed.
		Cursor: You can drag a cursor to display the sensor values at the cursor position. A passed time at the cursor position will be displayed in the text box.
		Pan: You can scroll graphs by dragging a plot area.
		Zoom: You can drag a plot area to zoom in plot area. You can also click a plot area with [Shift] key to zoom out.
4	Selected Data Item	Display a value of Data Item at the cursor position.
5	[Toolbar] View Setting button	Show Log File View Setting Dialog. ( See 4 - 8 - 1 Log File View Setting )
6	[Toolbar] Print button	Print a screen image.
7	[Toolbar] Open Log File button	Show common dialog to open a log file.

## 4 - 8 - 1 Log File View Setting

This dialog is used to set graph parameter.

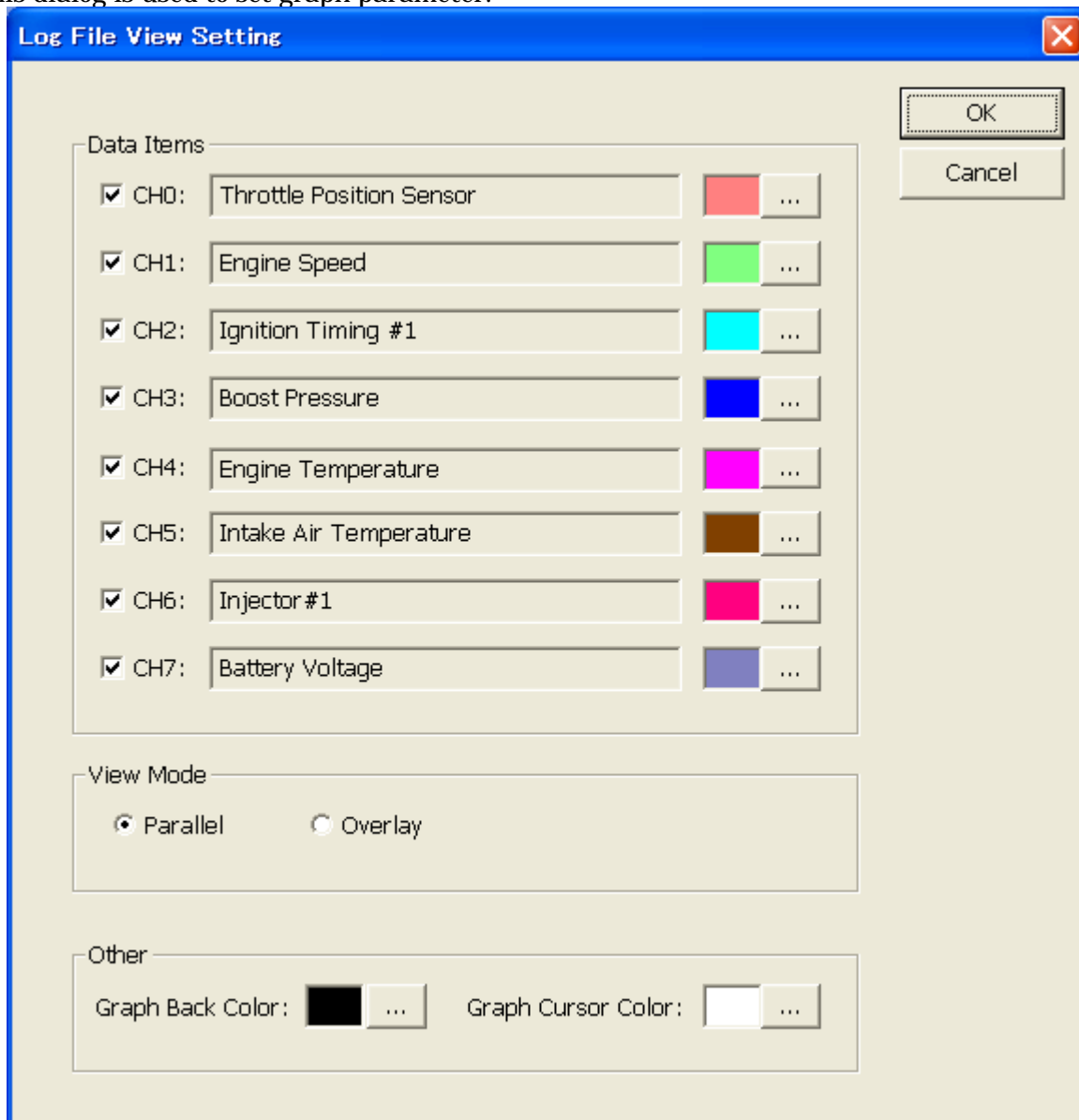


Figure 16 Log File View Setting Dialog

1	Data Items Check box	Set a channel to be displayed or not. Checked channels are displayed by graph.
2	Data Items Combo box	Select Data Item of a channel.
3	Data Items [...] button	Select a plot color of a channel.
4	View Mode	Select a view mode. Parallel: Each channel is displayed in a separate graph. Overlay: All channels are displayed in one graph.
5	Graph Back Color	Select a back color of graphs.
6	Graph Cursor Color	Select a cursor color of graphs.
7	[OK] button	Save settings and close this dialog.
8	[Cancel] button	Cancel settings and close this dialog.

## 4 - 9 Transfer Setting

This dialog is used to set the transfer.

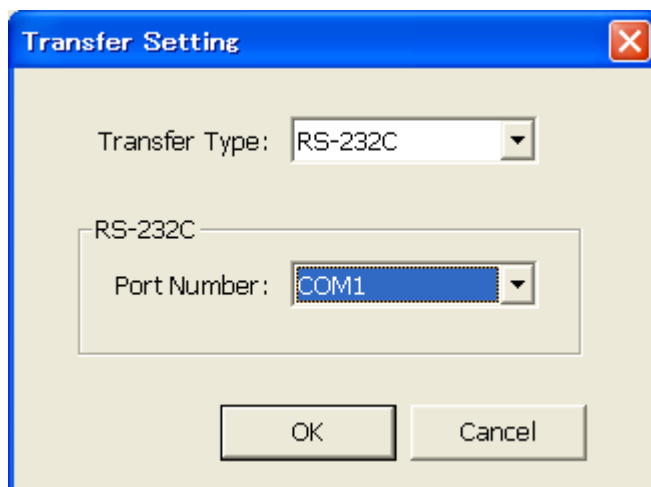


Figure 17 Transfer Setting Dialog

1	Transfer Type combo box	Set the transfer type. You can select the transfer type only 'RS232C' in this version.
2	RS232C Port Number combo box	Set the COM port. It is possible to select COM port from 'COM1' - 'COM10' and 'Auto'. If 'Auto' is selected, COM port is searched from 'COM1' to 'COM10' when the Back button is clicked.
3	[OK] button	Check ECU connection. If succeeded to connect to the ECU, close this dialog. If failed to connect to the ECU, the Message 13 will be shown( See the 5 - 1 Message List).
4	[Cancel] button	Cancel settings and close this dialog.

## 4 - 1 0 Language Setting

This dialog is used to select a language.



Figure 18 Language Setting Dialog

1	American national flag	Select English as the language setting.
2	Italian national Flag	Show the message12(See the 5 - 1 Message List).
3	French national Flag	Show the message12(See the 5 - 1 Message List).
4	German national Flag	Show the message12(See the 5 - 1 Message List).
5	Spanish national Flag	Show the message12(See the 5 - 1 Message List).
6	Portuguese national Flag	Show the message12(See the 5 - 1 Message List).
7	[OK] button	Save settings and close this dialog.
8	[Cancel] button	Cancel settings and close this dialog.

## 4 - 1 1 Throttle Setting

This function is to set a TPS (Throttle Position Sensor) voltage at closing point to the ECU. In order to adjust differences of throttle body (TH/B) on a vehicle, it is possible to let the ECU to learn the TPS voltage at the metal touch position of throttle butterfly.

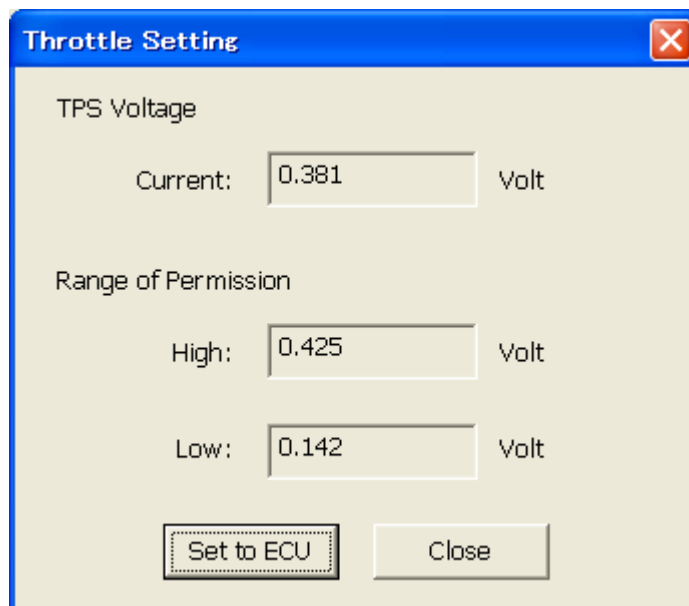


Figure 19 Throttle Setting Dialog

1	TPS Voltage Current	Display current TPC voltage. If the voltage is not within a normal range, it will be displayed in red.
2	Range of permission High	Display upper bound voltage within the normal range.
3	Range of permission Low	Display lower bound voltage within the normal range.
4	Set to ECU button	Set the TPS voltage to the ECU. When you clicked the button, the Message 19 will be shown(See the 5 - 1 Message List ). If you select 'Yes' button, current TPS Voltage will be set to the ECU. If it is succeeded to set, the Message 20 will be shown(See the 5 - 1 Message List). But if it is failed to set, one of the Message 21-28 will be shown (See the 5 - 1 Message List).
5	[Close]ボタン	Close this dialog.

## 4 - 1 2 ECU Information

This dialog is used to see ECU information.

Figure 20 ECU Information Dialog

1	ECU ID	Display the ECU ID (Serial Number).
2	VIN	Display a VIN (Vehicle Identification Number) code of the ECU.
3	Software Type	Display a software type of the ECU.
4	Software Version	Display a hardware version of the ECU.
5	Hardware Type	Display a hardware type of the ECU.
6	Data Version	Display a data version of the ECU.
7	Data Structure Version	Display a data structure version of the ECU.
8	[Print] button	Print ECU information data.
9	[OK] button	Close this dialog.

## 4 - 1 3 VIN Setting

This dialog is used to set a VIN code to the ECU.

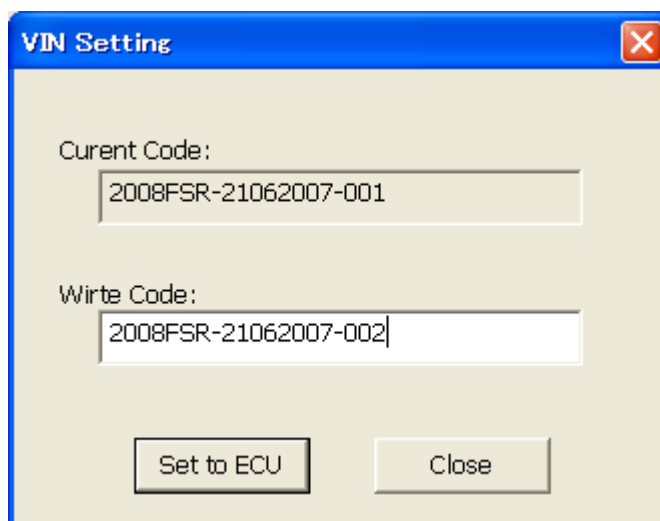


Figure 21 VIN Setting Dialog

1	Current Code	Display a VIN (Vehicle Identification Number) code of the ECU.
2	Write Code text box	Input a VIN code to be set to the ECU.
3	[Set to ECU] button	Set inputted VIN code to the ECU. When you clicked the button, the Message 29 will be shown(See the 5 - 1 Message List). If you select 'Yes' button, the VIN code will be set to the ECU. If it is succeeded to set, Current Code will be updated. But if it is failed to set, the Message 30 will be shown(See the 5 - 1 Message List).
4	[Close] button	Close this dialog.

## 4 - 1 4 About K-Scan

This dialog is used to display version information.

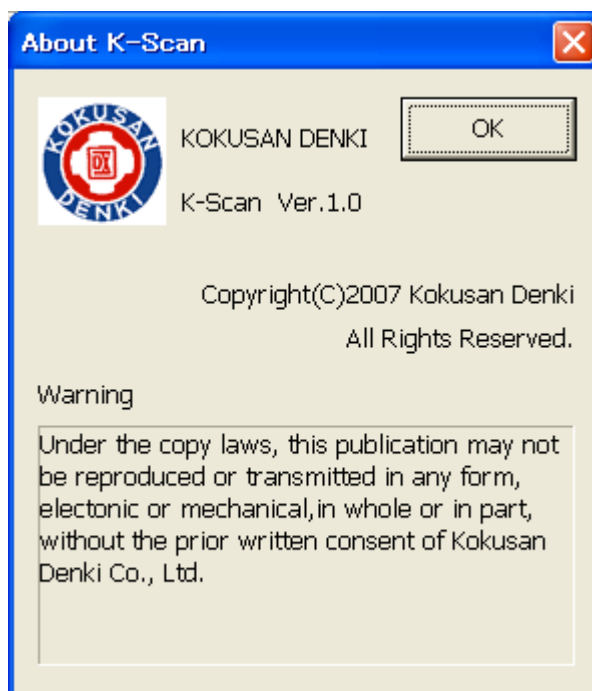


Figure 22 About K-Scan Dialog

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1	[OK] button	Close this dialog.
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## 5 Others

### 5 - 1 Message List

#	Message	Type	Screen	Case
1	Cannot open 'K-Scan.txt'.	OK	Title	'K-Scan.txt' does not exist.
2	Cannot open 'GraphSetting.txt'.	OK	Title	'GraphSetting.txt' does not exist.
3	Cannot open 'PCodeSetting.csv'.	OK	Title	'PCodeSetting.csv' does not exist.
4	Cannot open 'MakerCodeSetting.txt'.	OK	Title	'MakerCodeSetting.txt' does not exist.
5	Cannot open 'ActiveTestSetting.csv'.	OK	Title	'ActiveTestSetting.csv' does not exist.
6	Cannot load the language DLL.	OK	Title	The DLL file of selected language does not exist.
7	Cannot connect to the ECU.	OK	Transfer Data View Data View Large Graph View Diagnosis Active Test Data Recording Throttle Setting ECU Information VIN Setting	The application cannot connect to the ECU.
8	The ECU connection is reconnected.	OK	Transfer Data View Data View Large Graph View Diagnosis Active Test Data Recording Throttle Setting ECU Information VIN Setting	The ECU connection is reconnected.
9	The ECU returned invalid maker code.	OK	Transfer Data View Data View Large	The ECU returned invalid maker code that is supported by 'MakerCodeSetting.txt'.

			Graph View Diagnosis Active Test Data Recording Throttle Setting ECU Information VIN Setting	
10	The ECU returned invalid code. Please reset the ECU.	OK	Diagnosis	When the ECU returned invalid code.
11	Push the stop button, and try again.	OK	Graph View Active Test Running Data Recording	When you click the button to Switch Screen while each process of Screens is running.
12	This version does not support this language.	OK	The language	When you select except English.
13	Cannot connect to the ECU!	OK	The transfer	The application cannot connect to the ECU with the setting when you click the back button.
14	Would you like to clear all historic errors?	YESNO	Diagnosis	When you click the History Clear button.
15	Cannot clear historic errors.	OK	Diagnosis	The application failed to clear the 'Historic Error'.
16	The recording error occurred.	OK	Data Recording	The application failed to record data.
17	The recording was finished.	OK	Data Recording	The recording was finished normally.
18	Cannot open the recording file.	OK	Data Recording	The application cannot open the recording file.
19	Have you set a throttle butterfly to the metal touch position? Is the range of the current voltage normal?	YESNO	Throttle Setting	When you click the Set to ECU button.
20	Setting is succeeded.	OK	Throttle Setting	When the ECU returned normal code.
21	TPS voltage is out of range.	OK	Throttle Setting	When the ECU returned this error code.

22	TPS Sensor Error.	OK	Throttle Setting	When the ECU returned this error code.
23	TPS Sensor Power Error.	OK	Throttle Setting	When the ECU returned this error code.
24	Engine is running.	OK	Throttle Setting	When the ECU returned this error code.
25	Out of Battery.	OK	Throttle Setting	When the ECU returned this error code.
26	There is no software in the ECU.	OK	Throttle Setting	When the ECU returned this error code.
27	Unexpected error occurred.	OK	Throttle Setting	When the ECU returned this error code.
28	This function is not supported by the ECU.	OK	Throttle Setting	When the ECU returned this error code.
29	Would you like to write VIN code?	YES/NO	VIN Setting	When you click the Set to ECU button.
30	Cannot write VIN Code.	OK	VIN Setting	When the application failed to write the 'Historic Error'.
31	Cannot save screen data.	OK	Data View Diagnosis	When the application failed to save screen data.
32	Cannot open selected log file.	OK	Log File View	When the application failed to open a log file.
33	Cannot print screen data.	OK	ECU Information	When the application failed to print screen data.
34	Cannot open 'K-Scan.pdf'.	OK	Help	When the application failed to open the 'K-Scan.pdf'.