
**User's
Manual**

**USB Compliance
Test Software**

Foreword

Thank you for purchasing the USB Compliance Test Software. This user's manual contains useful information about the functions, operating procedures, and handling precautions of the software. To ensure correct use, please read this manual thoroughly before beginning operation. After reading this manual, keep it in a convenient location for quick reference in the event a question arises during operation.

There are five manuals regarding USB compliance testing including this one. Read them along with this manual.

Manual Name	Manual No.	Description
USB Compliance Test Software User's Manual	IM 701985-61E	This manual. Describes the functions and operating procedures of the software.
USB Compliance Test Fixture User's Manual	IM 701985-01E	Describes operation of the test fixture used for USB compliance tests.
Universal Serial Bus 2.0 Device Compliance Test Procedure (CD-ROM)	IM 701985-62E	Describes settings and procedures for USB device compliance tests.
Universal Serial Bus 2.0 Host Compliance Test Procedure (CD-ROM)	IM 701985-63E	Describes settings and procedures for USB host compliance tests.
Universal Serial Bus 2.0 Hub Compliance Test Procedure (CD-ROM)	IM 701985-64E	Describes settings and procedures for USB hub compliance tests.

Notes

- The contents of this manual are subject to change without prior notice as a result of improvements in the software's performance and functions. Display contents illustrated in this manual may differ slightly from what actually appears on your screen.
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Revisions

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Number of License: 1

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1 Product Overview

USB Compliance Test Software (busXplorer-USB)

The compliance tests conducted to obtain USB standard certification are defined by USB-IF^{*1} which was established by the industry group that developed the USB specification. Using busXplorer-USB, you can perform compliance testing for evaluation of USB peripherals and systems running under USB 2.0 (Hi-Speed, Full-Speed, and Low-Speed). If you connect a personal computer (PC), the DL9240/DL9240L, and a dedicated test fixture with the device under test (DUT), run busXplorer-USB, and then input a test signal from the test bed computer^{*2}, you can have the waveform data, measured results, and image data from the DL9240/DL9240L transferred automatically to the PC for observation, judgments, and analysis in the busXplorer-USB screen.

*1 USB Implementers Forum, Inc. (<http://www.usb.org/>)

*2 The PC on which the Hi-Speed Electrical Test Tool is installed. The test tool is used for verification and evaluation when executing a USB compliance test offered by the USB-IF.

Environment Settings <<See chapter 5, “Environment Settings” for the operating procedure>>

The following items can be set.

- Selection of the DUT category
The category selected here is also valid for Executing Tests and Displaying Results.
- Selection of the DUT speed type (HS or FS/LS)
- Settings for communication with the DL9240/DL9240L
- Selection of the working folder for automatically storing test results data
Test results files for each test are automatically saved to the folder specified here.
- Selection of the naming convention for test results files
- Setting of the display color and font
- Saving and loading of settings

Executing Tests <<See chapter 6, “Executing Tests” for the operating procedure>>

The following items can be executed or displayed in the test execution screen for each of the DUTs selected in the environment settings.

- Execution of USB compliance tests
- Display of PASS/FAIL for the most recent test results
- Display of detailed test results

Displaying Results <<See chapter 7, “Displaying Results” for the operating procedure>>

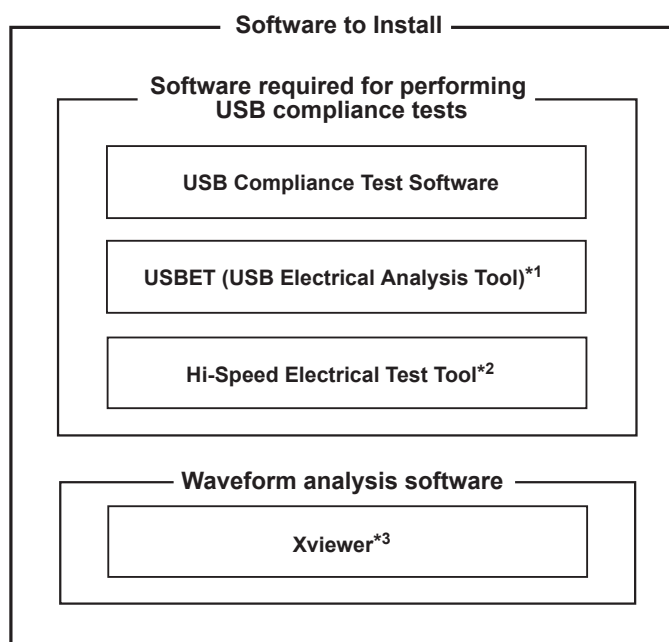
You can select, display, and delete test results files in the results display screen.

After executing a test, test results files saved in the working folder can be displayed and analyzed in the following manner.

- Display test results using Internet Explorer.
 - Display an image of the DL9240/DL9240L screen during test execution.
 - Analyze waveforms using Xviewer (model 701992)*.
- * A trial version of Xviewer is included with busXplorer-USB. For usage restrictions and precautions, see chapter 3, "Installing/Uninstalling the Software."

Required Software Installations

The following software must be installed as shown below to run busXplorer-USB. In addition to the software installed from the product CD-ROM, you must download the Hi-Speed Electrical Test Tool and USBET from the USB-IF Web site.



*1 Available at the USB-IF members-only site (<http://www.usb.org/members/compliance>)

*2 Available from the USB-IF developer's site (<http://www.usb.org/developers/tools>)

*3 A trial version is included in which all functions of the software are available for one month.

Hi-Speed Electrical Test Tool

This test tool aids verification and evaluation when performing USB compliance tests offered by the USB-IF. The tool must be installed on a computer running an English-language version of the operating system. The computer on which this test tool is installed is referred to as the test bed computer.

For instructions on installing the Hi-Speed Electrical Test Tool, see "Universal Serial Bus Implementers Forum Hi-speed Electrical Test Toolkit Setup Instruction" (available at: <http://www.usb.org/developers/tools>).

USBET

This is an official tool available to USB-IF members. It is used for the Low-Speed/Full-Speed/High-Speed Signal Quality Tests and the Inrush Current Test. Install the tool on the same PC as busXplorer-USB.

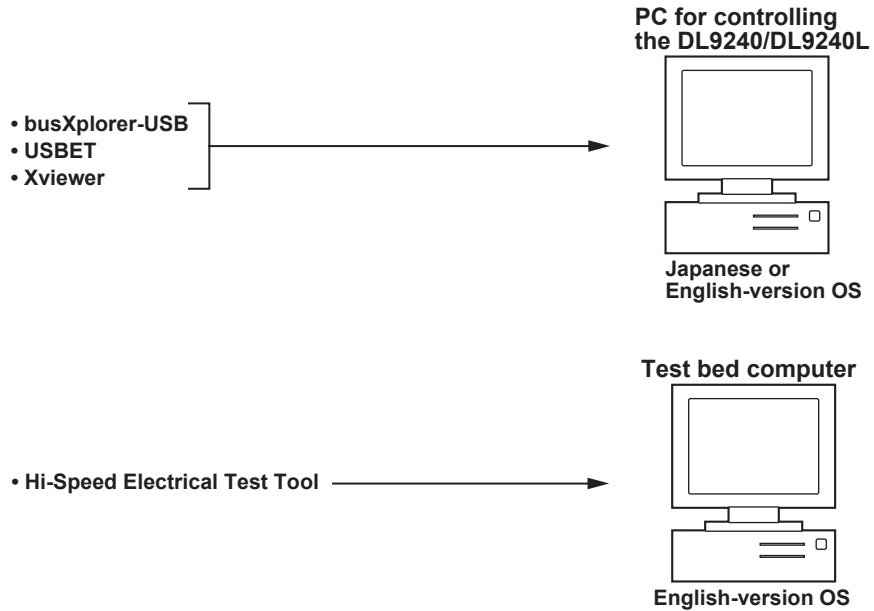
Installation instructions for USBET (USBET Instruction.rtf) are included in the USBET software package, available at: <http://www.usb.org/members/compliance>.

Note

You must be a member of USB-IF to download USBET.

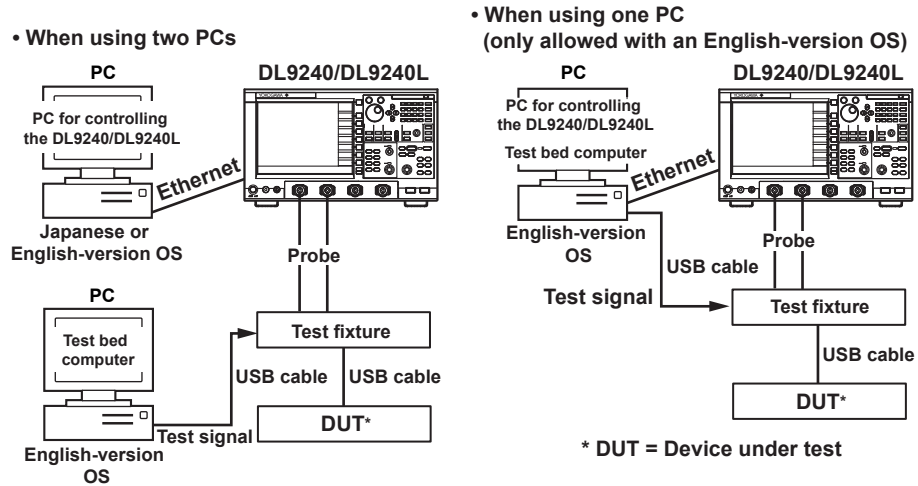
Installing Programs on the Correct PCs

Each program must be installed on a specific PC. Make sure you install each program on the correct PC. For installation instructions, see section 3, "Installing/Uninstalling the Software."



System Configuration Example

An example of a system configuration for performing USB compliance tests is shown below.



Compliance Tests Supported by This Software

USB Device Compliance Tests

- Device Hi-Speed Signal Quality Test (EL_2, EL_4, EL_5, EL_6, EL_7)
- Device Packet Parameters Test (EL_21, EL_22, EL_25)
- Device CHIRP Timing Test (EL_28, EL_29, EL_31)
- Device Suspend/Resume/Reset Timing Test (EL_27, EL_28, EL_38, EL_39, EL_40)
- Device Test J/K, SE0_NAK (EL_8, EL_9)
- Device Receiver Sensitivity Test (EL_16, EL_17, EL_18)
- Inrush Current Test
- LS Upstream Signal Quality Test
- FS Upstream Signal Quality Test
- Backdrive Voltage Test

USB Host Compliance Tests

- Host Hi-speed Signal Quality Test (EL_2, EL_3, EL_6, EL_7)
- Host Packet Parameters Test (EL_21, EL_22, EL_23, EL_25, EL_55)
- Host CHIRP Timing Test (EL_33, EL_34, EL_35)
- Host Suspend/Resume Timing Test (EL_39, EL_41)
- Host Test J/K, SE0_NAK (EL_8, EL_9)
- Droop Test
- Drop Test
- LS Downstream Signal Quality Test
- FS Downstream Signal Quality Test

USB Hub Compliance Tests

- Hub High-speed Signal Quality - Upstream Facing Port Test (EL_2, EL_46, EL_6, EL_7)12
- Hub High-speed Signal Quality - Downstream Facing Ports Test (EL_2, EL_3, EL_6, EL_7) 19
- Hub Jitter Downstream Facing Ports Test (EL_47)
- Hub Packet Parameters - Upstream Facing Port Test (EL_21, EL_22, EL_25)
- Hub Receiver Sensitivity - Upstream Facing Port Test (EL_16, EL_17, EL_18)
- Hub Repeater Test - Downstream Facing Ports Test (EL_42, EL_43, EL_44, EL_45, EL_48)
- Hub Repeater Test - Upstream Facing Port Test (EL_42, EL_43, EL_44, EL_45)
- Hub CHIRP Timing - Upstream Facing Port Test (EL_28, EL_29, EL_31)
- Hub Suspend/Resume/Reset Timing - Upstream Facing Port Test (EL_27, EL_28, EL_38, EL_39, EL_40)
- Hub Test J/K, SE0_NAK - Upstream Facing Port (EL_8, EL_9)
- Hub Test J/K, SE0_NAK - Downstream Facing Ports (EL_8, EL_9)
- Upstream Inrush Current Test
- Downstream Droop Test
- Drop Test
- LS Downstream Signal Quality Test
- FS Downstream Signal Quality Test
- FS Upstream Signal Quality Test
- Backdrive Voltage Test

System Requirements

PC

- CPU
Pentium 4, 2 GHz or faster (or equivalent)
- Memory
512 MB or more
- Hard disk
300 MB or more of free space

Operating System (OS)

Japanese or English version of Windows XP Home Edition (SP1 or later), Windows XP Professional (SP1 or later), or Windows 2000 Professional (SP4 or later).

CD-ROM Drive

One CD-ROM drive, required to install busXplorer-USB.

Ethernet

A 10BASE-T/100BASE-TX compatible Ethernet communications port.

Display, Printer, Mouse (or Pointing Device)

Devices compatible with the OS that you are using.

Recommended display: 1024 × 768 dpi or higher resolution, RGB 65,536 colors or more.

Contents of the Package

Unpack the box and check the contents before using the software. If some parts are missing or otherwise inconsistent with the contents description, please contact your dealer or nearest Yokogawa representative.

- **CD-ROM**
USB Compliance Test Software
Model: 701985/F30
- **User's Manual**
USB Compliance Test Software User's Manual
- **Test Fixture**
Model: 701985

2 Important Information Regarding Operation and Storage

Operation of the Software

This user's manual does not cover the procedures for performing USB compliance tests with busXplorer-USB. For that information, you can open the manual for each of the individual compliance tests from the busXplorer-USB online help menu.

Software Usage Precautions

- This software may not be able to run continuously if the PC is set to enter a standby mode. Be sure to turn off the PC's standby mode.
- BusXplorer-USB can only control one DL9240/DL9240L. Multiple PC's cannot connect to the same DL9240/DL9240L at the same time.
- If an error occurs when connecting to the DL9240/DL9240L that prevents connection, turn the DL main unit's power switch OFF, then restart busXplorer-USB.

Storing the CD-ROM

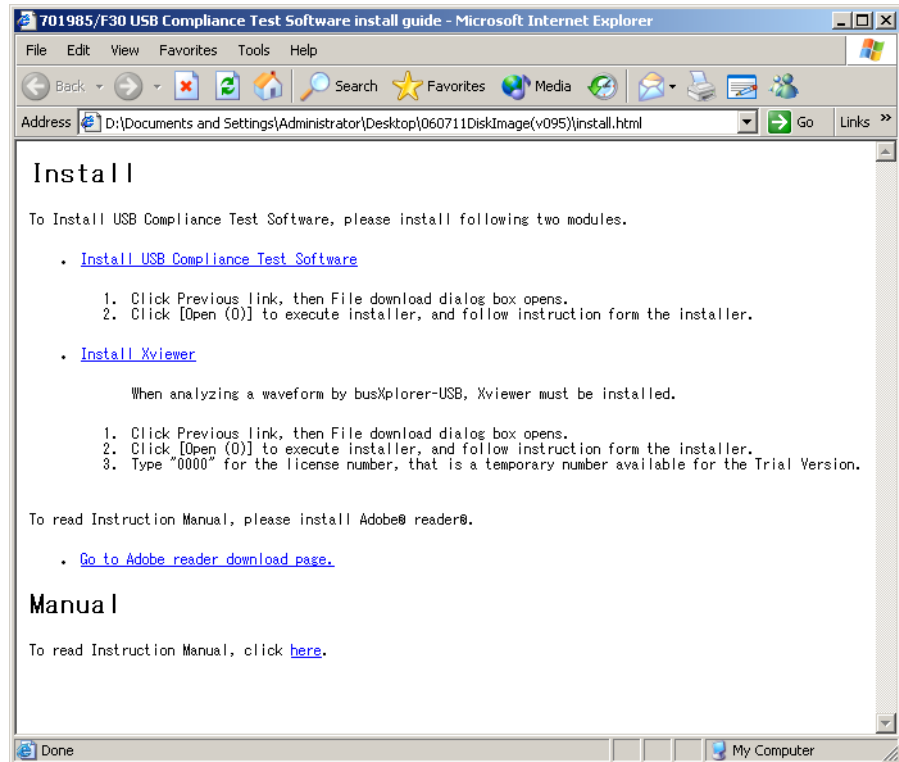
Please store your original CD-ROM (busXplorer-USB) carefully. Install the products on your hard disk, and run the products from your hard disk during actual use.

3 Installing and Uninstalling the Software

Operation

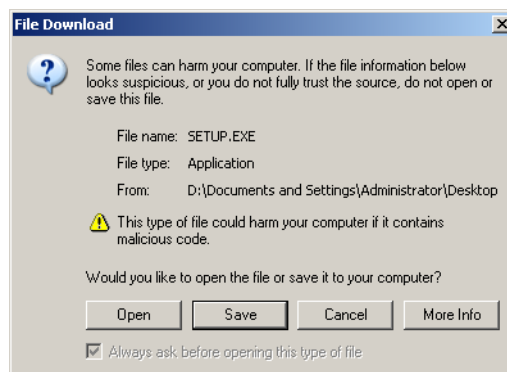
The following procedures apply to installation on Windows XP.

1. Turn ON the power to the PC and start Windows with Administrator privileges.
2. Insert the CD-ROM containing busXplorer-USB into the CD-ROM drive.
The screen below appears automatically.

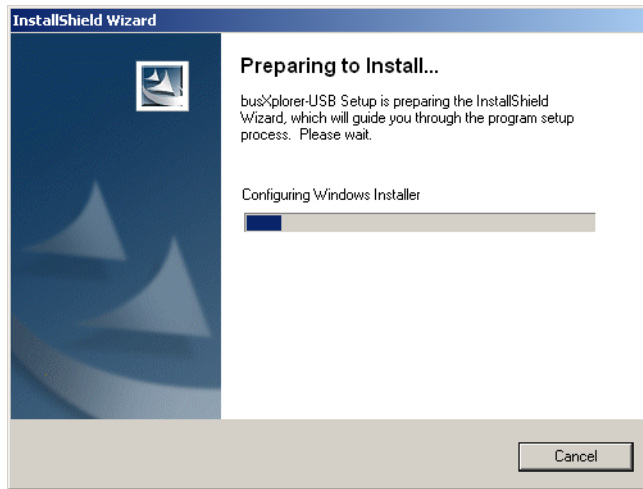


Installing busXplorer-USB

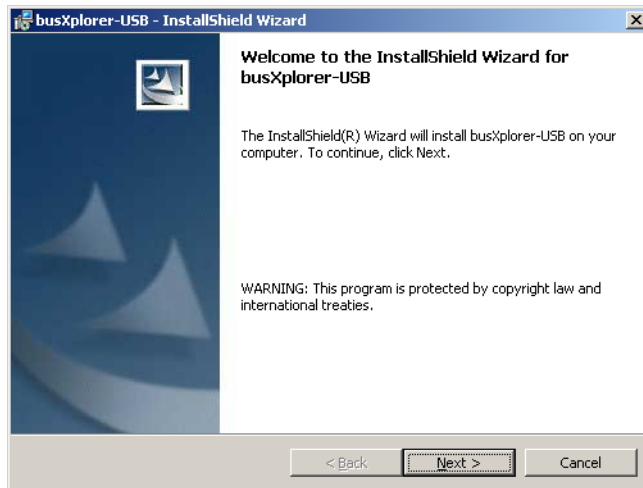
3. Click **Install USB Compliance Test Software**.
A screen such as the one below appears.



4. Click **Open** to launch the installer and begin setup.

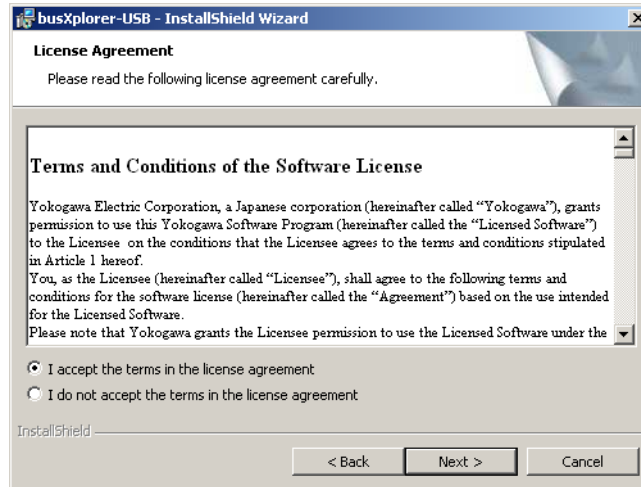


5. Following the on-screen instructions, click **Next**.

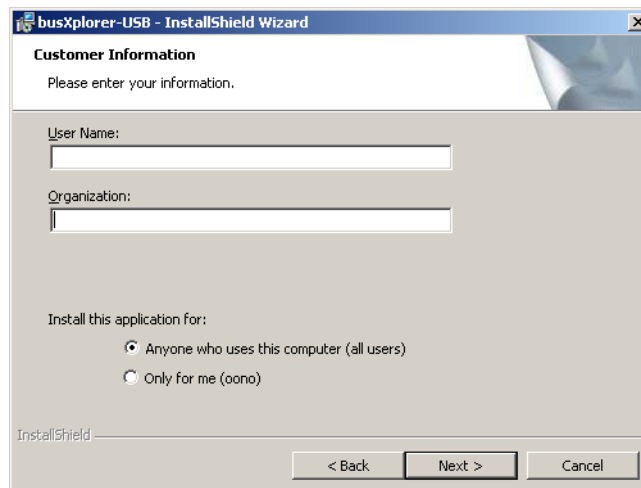


3 Installing and Uninstalling the Software

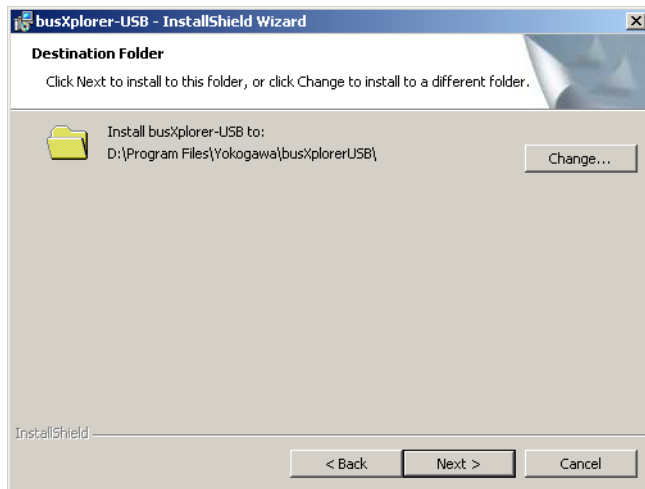
6. The license agreement screen appears. If you have read and agree to the terms of the license agreement, select **the corresponding option** and click **Next**.



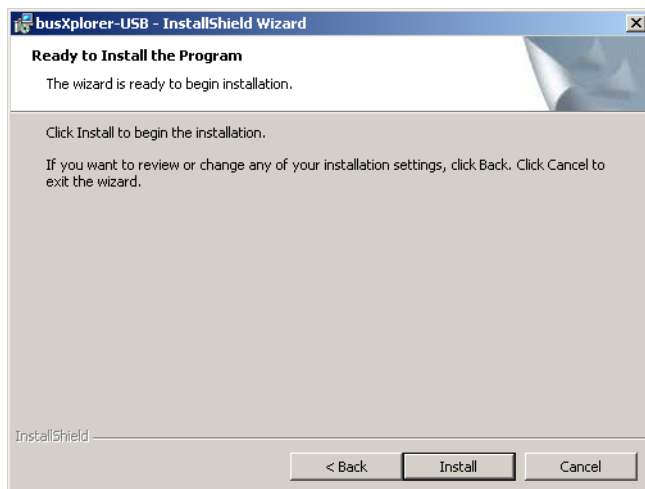
7. The user information entry screen appears. Enter a user name and affiliation, select a user for busXplorer-USB, then click **Next**.



8. The installation destination setting screen appears. The default setting is C:\Program Files\Yokogawa\busXplorer-USB. To change the destination folder, click **Change** and specify a new directory. Confirm or edit the installation directory, then click **Next**.

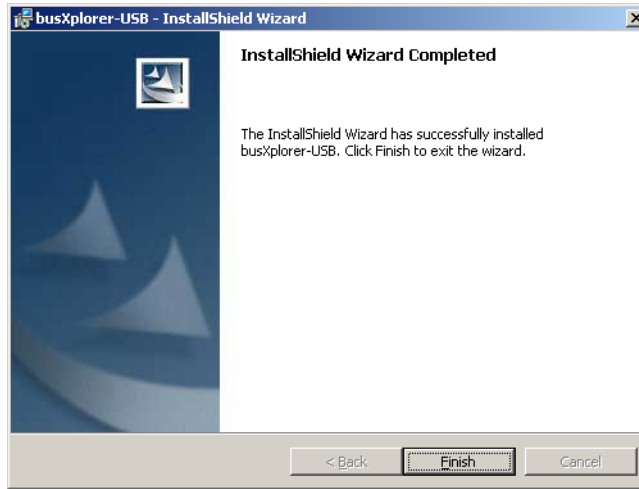


9. The installation start screen is displayed. If the installation settings are correct, click **Install**. If you wish to edit installation settings, click the **Back** button and make the necessary changes. Click **Cancel** to end the installation.

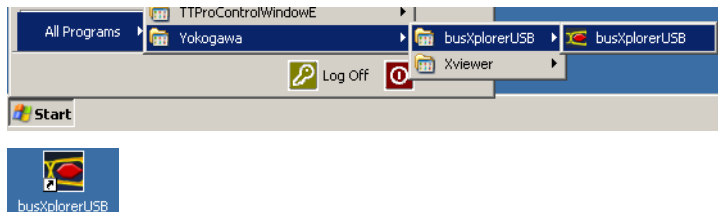


3 Installing and Uninstalling the Software

10. The software installation is executed. If there are no errors during installation of the software, the screen below appears.

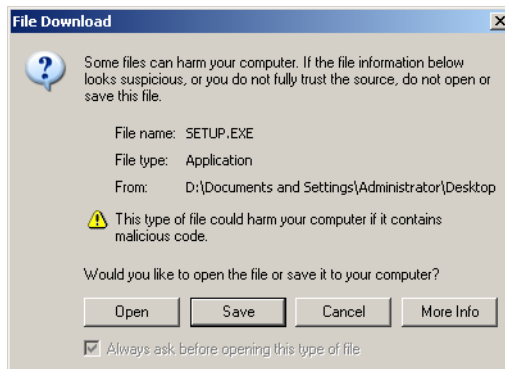


11. Click **Finish** to complete the installation. Yokogawa > busXplorerUSB is added to the Windows Start > Programs menu, and a shortcut is placed on the desktop.

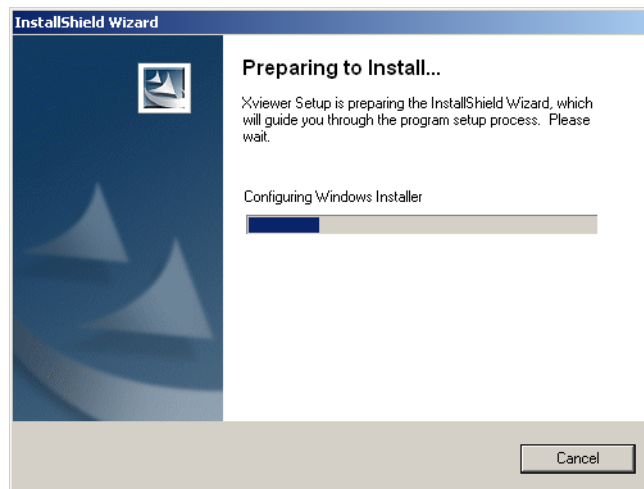


Installing Xviewer (Trial Version)

12. After installation of busXplorer-USB is complete, click **Install Xviewer**. A screen such as the one below appears.



13. Click **Open** to launch the installer and begin setup.



14. Follow the on-screen instructions to install the program.
15. Enter 0000 for the license number when prompted during installation.
All functions of the software are available for one month on a trial basis.
16. When installation is complete, restart your computer.

Uninstalling the Software

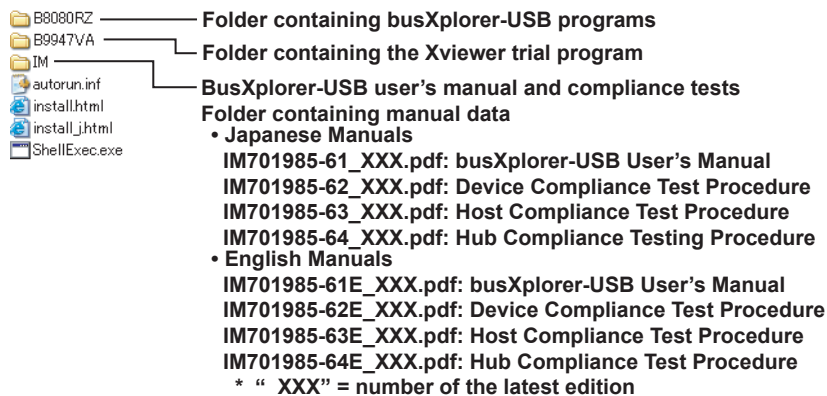
The following procedures apply to uninstallation on Windows XP.

1. Open the control panel from the Windows Start menu.
2. In the control panel screen, double-click Add or Remove programs.
3. Select the program you wish to delete in the Add or Remove Programs screen, then click Remove.
4. The delete program confirmation screen appears. Click Yes to perform the deletion. Click No to cancel the deletion.
5. The software uninstallation is executed.

Explanation

Contents of the Installation Disk

The contents of the busXplorer-USB installation disk are as follows:



Xviewer

Xviewer is a software program that displays waveforms of data measured by Yokogawa digital oscilloscopes (such as the DL9240/DL9240L) and ScopeCorders on a PC (the "Viewer" function), and offers online file transfers and remote control of DL series instruments.

A trial version of Xviewer is included with busXplorer-USB. Use of the trial version is restricted as follows.

- **Usage Restrictions and Precautions**

The trial version of Xviewer included with busXplorer-USB has all of the functions of the full version. It can be used for one month after installation of busXplorer-USB.

After the one month trial period, the software can still be used, but only the following functions will be available.

- **Waveform viewer (Viewer)**
- **Vertical cursor measurements**
- **CSV data conversion**

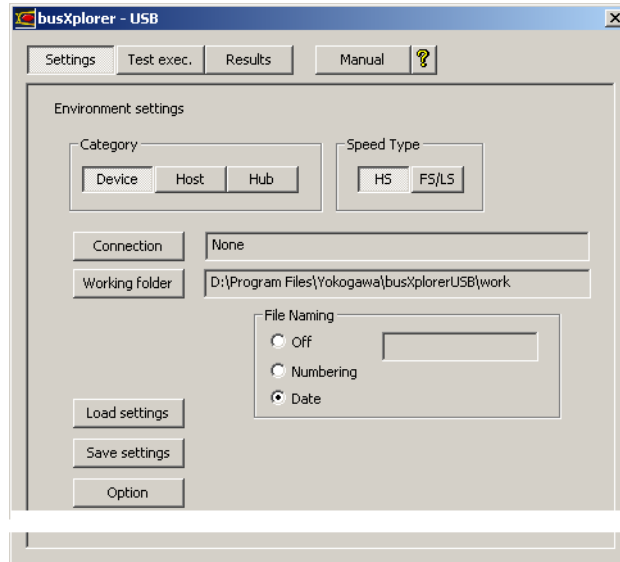
The software can be reinstalled after the one month trial period, but the restrictions on functions will still apply. To gain access to all functions, please obtain the full version (model 701992).

You must uninstall the trial version before installing the full version.

4 Launching and Exiting the Software

Launching the Software

To run the software, click the Windows Start button, then choose Programs > Yokogawa > busXplorer-USB. The screen in the figure below appears. On and after the second time you start the software, the settings from the previous session are used.

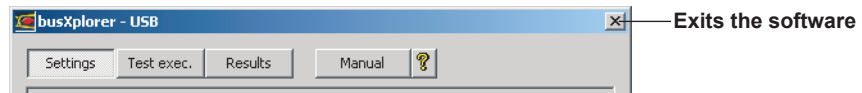


Note

busXplorer-USB may not function correctly if two instances of the program are run at the same time.

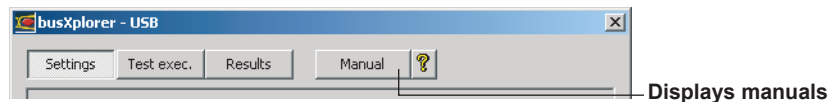
Exiting the Software

Click the X button on the toolbar. A confirmation dialog box appears. Click OK.



Displaying Compliance Test Procedures

Click the Manual button. If Acrobat Reader is installed in the PC, it launches, and a pdf file of the manual corresponding to the category of the currently selected USB 2.0 compliance test is displayed.



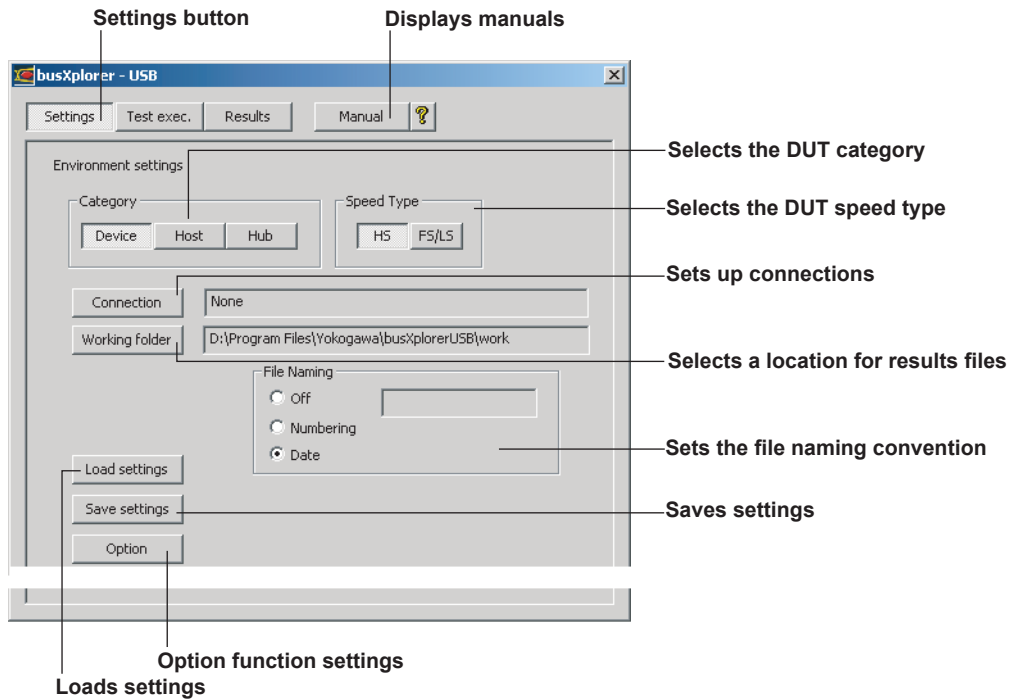
Note

- Adobe Reader by Adobe Systems is required to open PDF files. You can download Adobe Reader from the following Web page.
<http://www.adobe.com/products/acrobat/readstep2.html>
- For information on how to obtain the latest procedures, see page 39.

5 Environment Settings

Procedure

1. Run busXplorer-USB.
The environment settings dialog box in the figure below opens.



Note

This manual only describes the operating procedures of the busXplorer-USB software. For a description of test items and methods, see the individual compliance test procedures.

Selecting the DUT Category

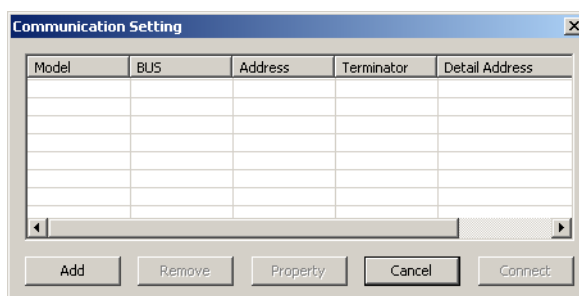
2. Click the **Settings** button, then click a button under Category corresponding to the category of test to execute.

Selecting the DUT Speed Type

3. Click the button under **Speed Type** for the appropriate speed for the test to be executed.

Connection Settings

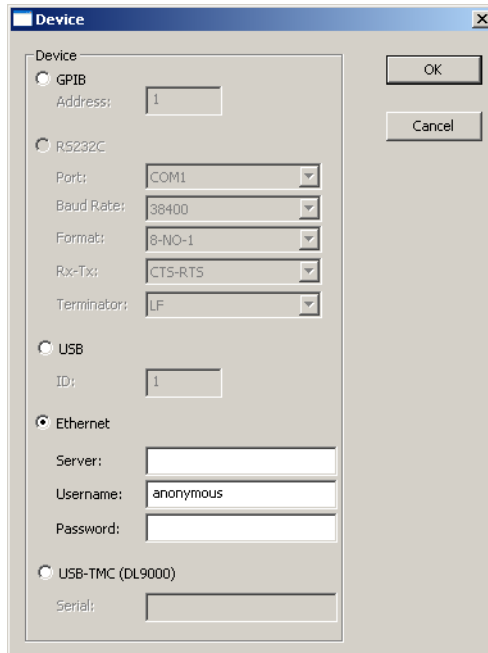
4. Open an Ethernet connection between the PC running busXplorer-USB and the DL9240/DL9240L. For details on making connections, see section 2.4, “Setting the DL9000 (Network)” in the DL9240/DL9240L Digital Oscilloscope Communications Interface User’s Manual (IM701310-17E).
5. Turn ON the power to the DL9240/DL9240L.
6. Click the **Connect** button in the dialog box.
The **connection settings** dialog box is displayed.



Note

If connections are already registered, they are displayed in a list. If the DL9240/DL9240L under test appears in the list, select it, then click the Connect button to establish communication with the DL.

7. Click the **Add** button.
The connection method selection dialog box in the figure below opens.



5 Environment Settings

8. Select **Network**, enter the IP address of the DL9240/DL9240L to connect to in the Server box, then click the OK button.

Enter the user name and password if required.

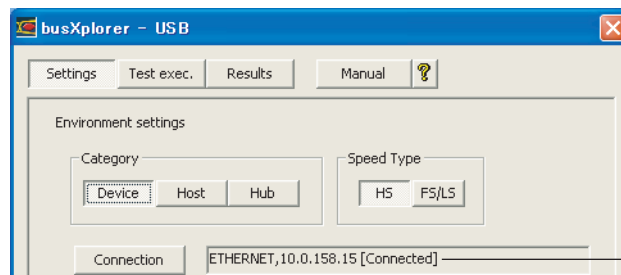
For details, see the DL9240/DL9240L Digital Oscilloscope User's Manual (IM701310-01E) and the DL9240/DL9240L Digital Oscilloscope Communications Interface User's Manual (IM701310-17E).

Note

Communications by means other than through a network are not supported.

9. A **connection settings** dialog box is displayed. Select a DL9240/DL9240L then click the **Connect** button.
 - If you select a connection in the list and click **Properties**, the connection method selection dialog box appears allowing you to change settings.
 - If you select a connection in the list and click **Delete**, the selected connection destination is deleted.

If the correct connection settings have been entered and a connection is established, "Ethernet, IP Address [Connected]" appears in the edit box to the right of the Connect button.

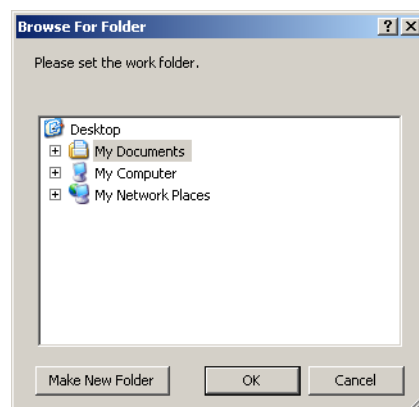


Displayed if connection is established

Selecting a Working Folder

10. Click the **Working folder** button.

A dialog box for browsing folders is displayed.



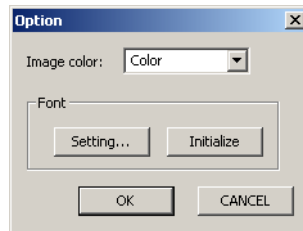
11. Select a working folder and click the OK button.

Setting the File Naming Convention

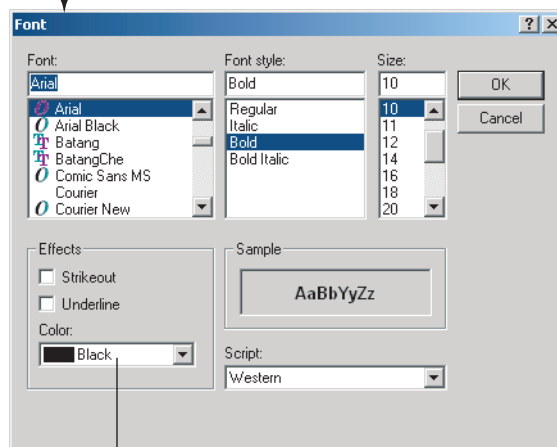
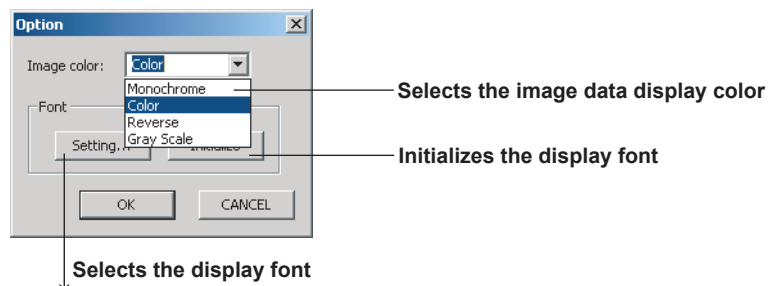
12. Select a convention for naming results files to be saved under File Naming. Choose from OFF, Numbering, or Date. If you select OFF or Numbering, enter a file name.

Optional Settings

13. Click the **Option** button.



14. Select a display color for image data in the list, then click the display font **Setting** button or the **Initialize** button to specify a display font.

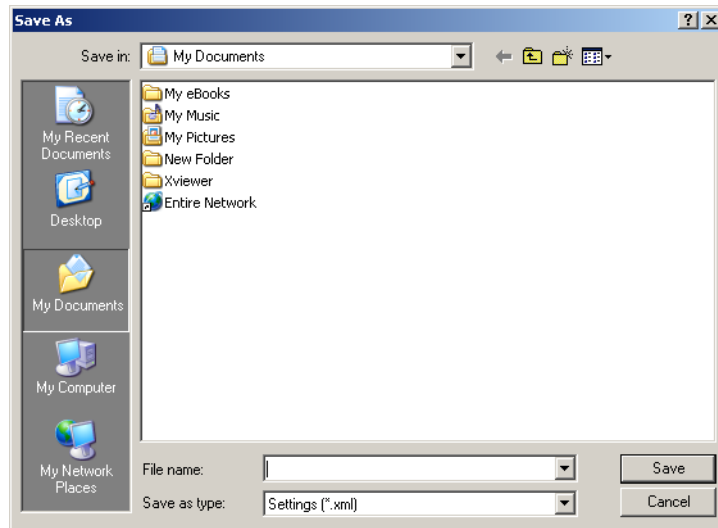


15. Click the **OK** button to apply settings.

The settings entered using the procedures above (test judgment range, etc.) can be saved and recalled.

Saving Environment Settings

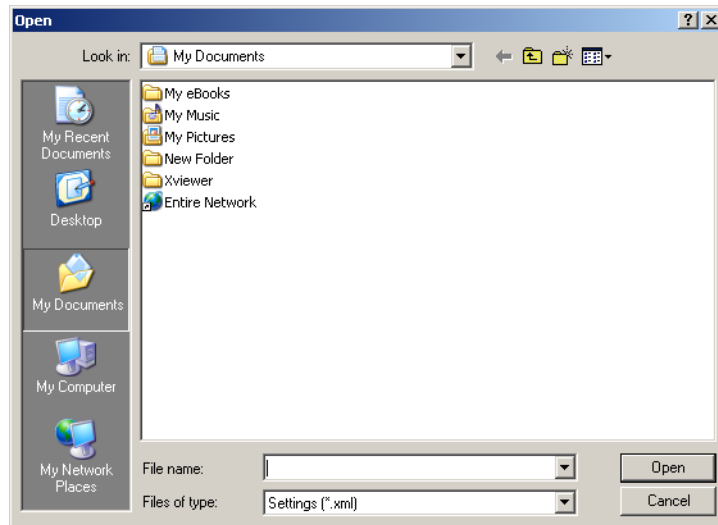
1. Click the **Save settings** button. A dialog box for browsing folders is displayed.



2. Select a save folder and click the OK button.

Loading Settings

1. Click the **Load settings** button. A dialog box for browsing folders is displayed.



2. Select the settings file to recall, then click the OK button.

Explanation

Setting Connection Destinations

The maximum number of connection destinations that can be registered is 16.

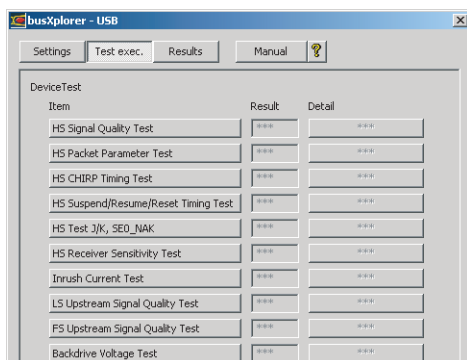
Selecting the DUT Category

Select a USB compliance test category of Device, Host, or Hub. The category selected here is also valid for Executing Tests and Displaying Results below.

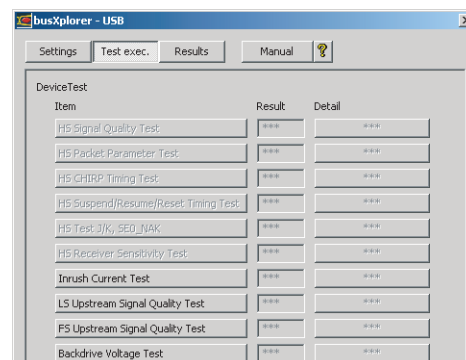
Selecting the DUT Speed Type

Select a speed type for the DUT of HS or FS/LS. Tests corresponding to the selected speed type are enabled in the test execution screen.

When HS is selected

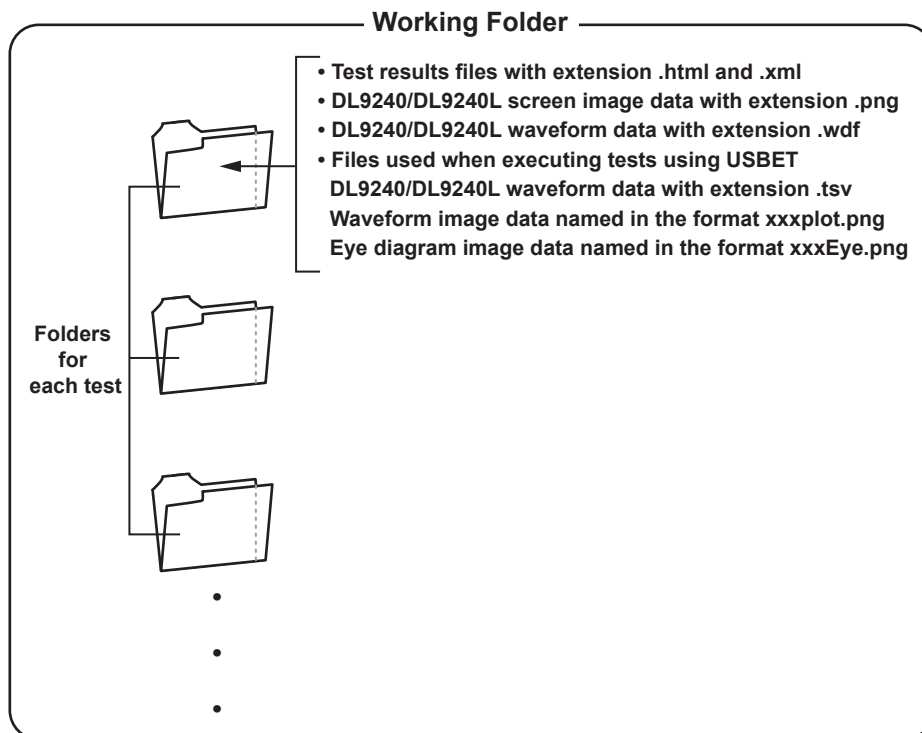


When FS/LS is selected



Files Stored in the Working Folder

Every time a test is completed, a folder named with the name of the test is created in the working folder. Files output during the various tests are added to their corresponding folder.



Setting the File Naming Convention

- **OFF**

Enter a file name in the box (of up to twenty alphanumeric characters). If AAAA is entered in the box, AAAA.xml is output. The test cannot be executed if another file with the same name exists.

- **Numbering**

Enter a file name in the box (of up to twenty alphanumeric characters). If AAAA is entered in the box, AAAAxxx.xml is output. If a file with the same name exists, output is named with the next consecutive number. For example, if a file named AAAA001.xml already exists, AAAA002.xml is output.

- **Date**

Regardless of any file name entered in the box, the top results file is assigned a name using the day, month, last two digits of the calendar year, hour, minutes, and seconds using the format below with the extension .xml.

0 8 M a y 0 6 1 6 5 5 3 9 . x m l
↑ ↑ ↑ ↑ ↑ ↑
DD MMM YY HH MM SS

Optional Settings

You can select the display color for the image data created during execution of tests from a list.

Click the font Setting button to change the font displayed by busXplorer-USB. Note that the text color is fixed to “black” and cannot be changed even by selecting a different color. Clicking the Initialize button restores the default font.

Saving/Loading Settings

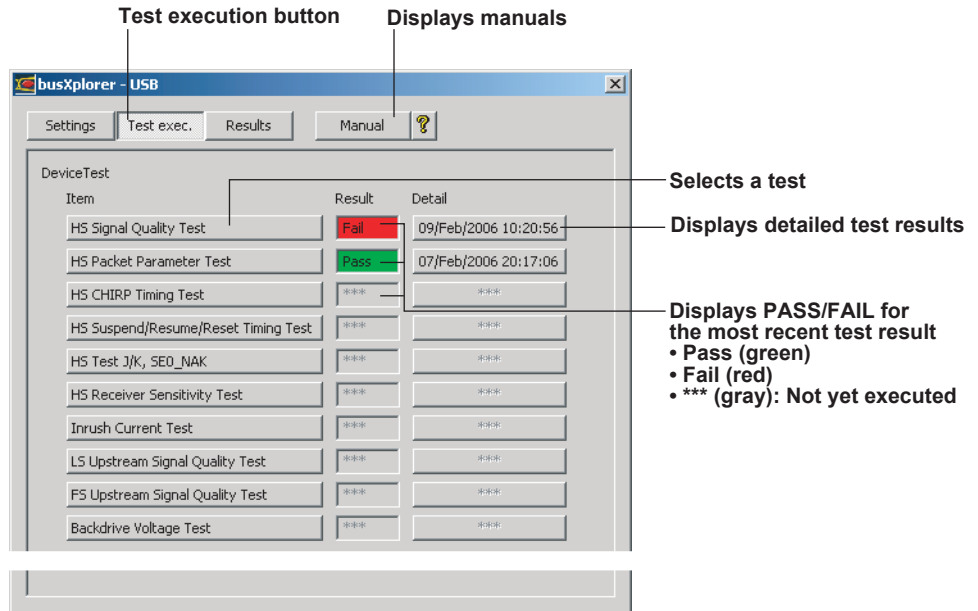
Settings files (with extension .xml) can be saved and loaded. You can also save settings files to a folder other than the working folder.

6 Executing Tests

Procedure

1. Click the **Test exec.** button.

A test execution dialog box such as the one in the diagram below is displayed, showing the most recent test results in the working folder.



2. Click the button for the test to be executed.

- The test begins. You can execute the test by following the steps on screen.
- For individual test procedures, click the Manual button and refer to the compliance test procedures that are displayed.

Note

When entering judgment criteria or measured values, you can use m(10-3), u(10-6), n(10-9), and p(10-12).

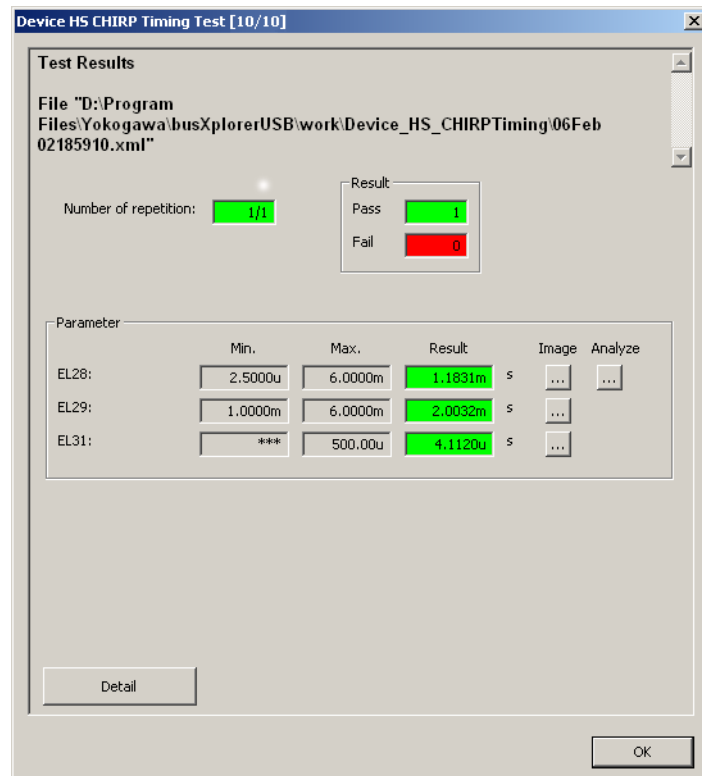
Displaying Detailed Results from the Most Recent Test

3. After testing is complete, click the **Detail** button to view detailed results from the most recent test in the working folder.

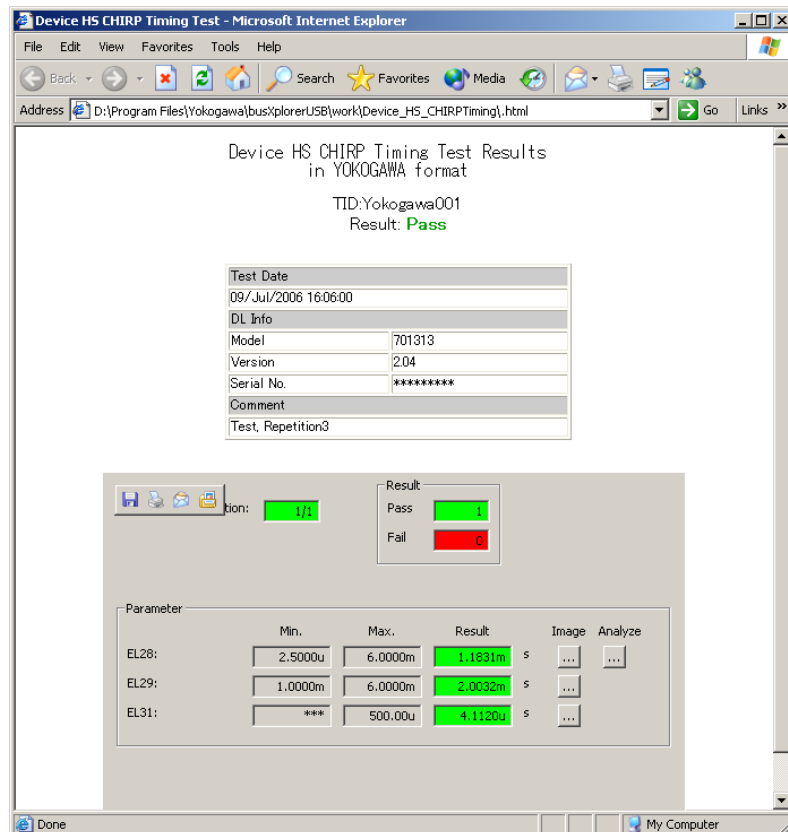
Explanation

Displaying Results after Test Completion

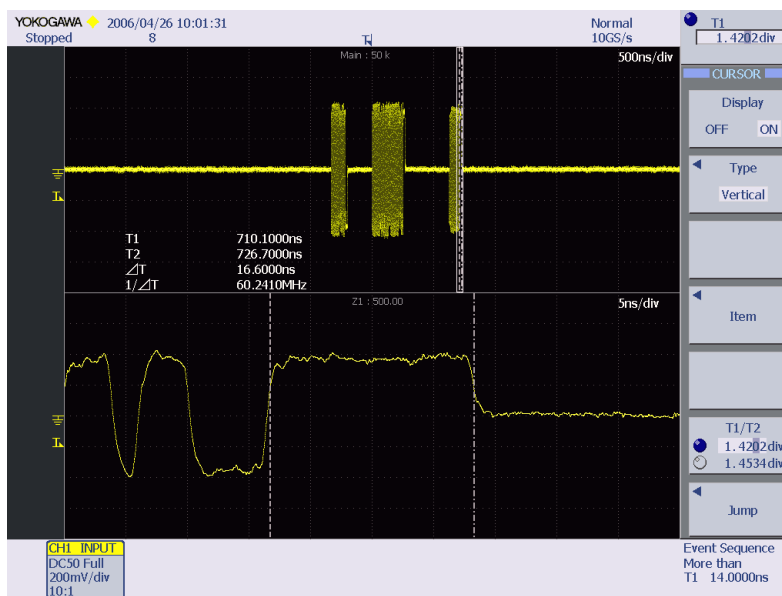
When testing is complete, test results are displayed in a screen such as the following.



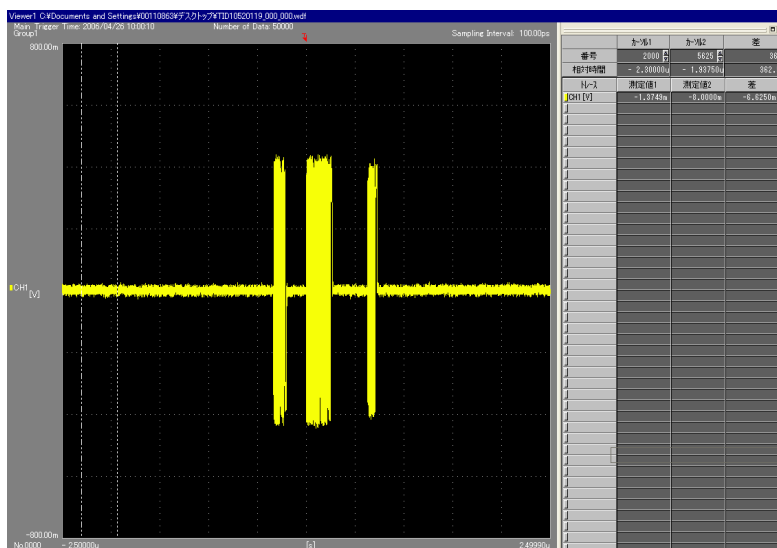
- When you click the Detail button, the Web browser launches and displays detailed test results.



- You can click the Image button to display an image of the DL9240/DL9240L screen.



Click the Analyze button to start Xviewer and display waveform data. Xviewer must be installed in advance. For information on installation and usage restrictions, see chapter 3, "Installing/Uninstalling the Software."



Note

- Tests for which the Image button, but not the Analyze button, is displayed in the test results display screen are analyzed using data measured in previous tests.

20. Record the test results in EL_21, EL_25 and EL_22.
 21. Remove the differential probe from the test fixture.

File "D:\Program

Number of repetition: 1/1

Result
 Pass 1
 Fail 0

Parameter	Min.	Max.	Result	unit	Image	Analyze
EL21:	31,500	32,500	0.0000	bit	...	...
EL25:	7,5000	8,5000	0.0000	bit	...	...
EL22 (1st step):	8.0000	192.00	0.0000	bit	...	...
EL22 (2nd step):	8.0000	192.00	0.0000	bit	...	...

Detail OK

The displayed unit toggles between bit and s each time you click

The 2 tests below are also analyzed

- Image button = Displayed
- Analyze button = Hidden

- If the results display box in the test results screen is yellow, it indicates that the value is treated as a waiver.

25. Record the test results in EL_18, EL_17, and EL_16.
 26. Return SW8 of the test fixture to the INIT position. LED2 of the test fixture is lit.

Number of repetition: 1/1

Result
 Pass 0
 Fail 1

Parameter	Min.	Max.	Result	Image	Analyze
EL18:	***	***	Pass	...	...
EL17:P-Voltage	***	150.00m	160.00m	...	...
N-Voltage	-150.00m	***	-180.00m	...	...
EL16:P-Voltage	100.00m	***	137.00m	...	...
N-Voltage	***	-100.00m	456.00m	...	...

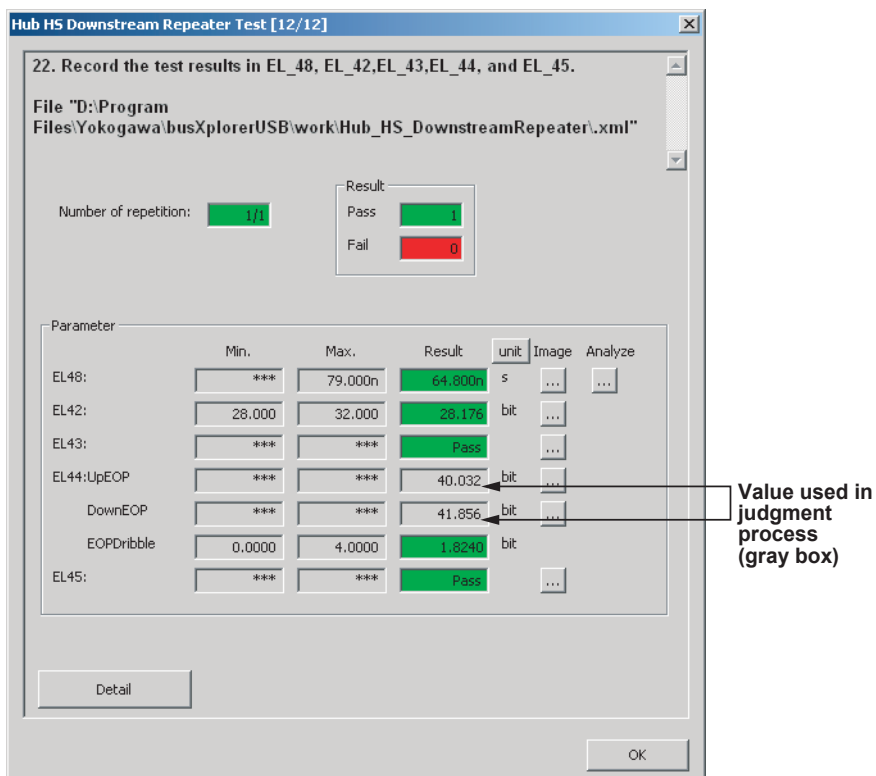
Detail OK

Indicates a waiver value (yellow box)

Passed the test (green box)

Failed the test (red box)

- Values in gray boxes in the test results screen are ones that were used in the judgment process.



Displaying PASS/FAIL of the Most Recent Test Result

The results from the most recent test within the working folder are always displayed in the test execution dialog box after testing is complete. If an item passes a test, the results box turns green and the word Pass is displayed. If it fails, the results box turns red and the word Fail is displayed. Boxes of tests that have yet to be executed remain gray, and contain three asterisks (***)

Displaying Details from the Most Recent Test Results

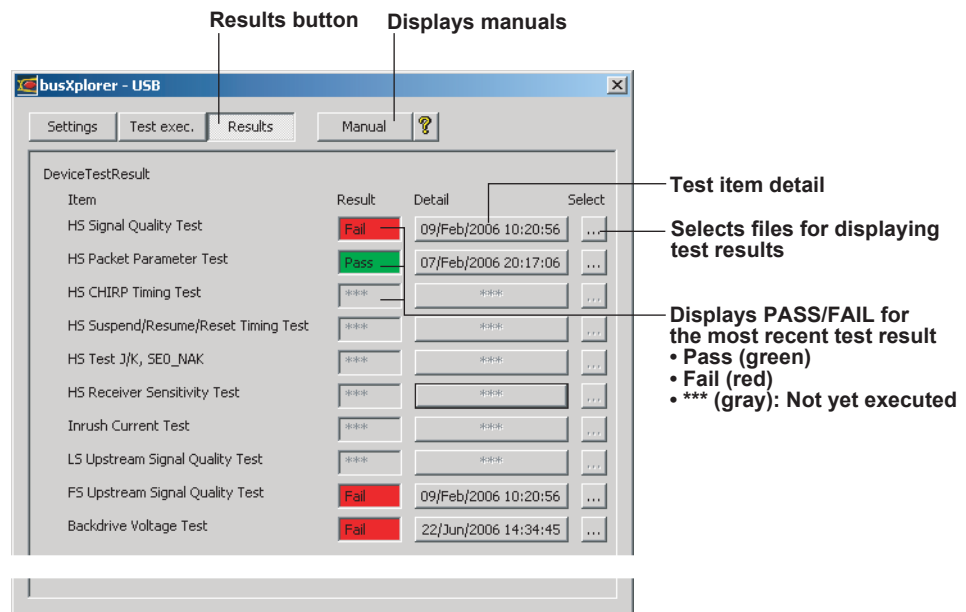
If you click the Details button after testing is complete, details of the results from the most recent test within the working folder are displayed in the test execution dialog box.

7 Displaying Results

Procedure

Displaying Results

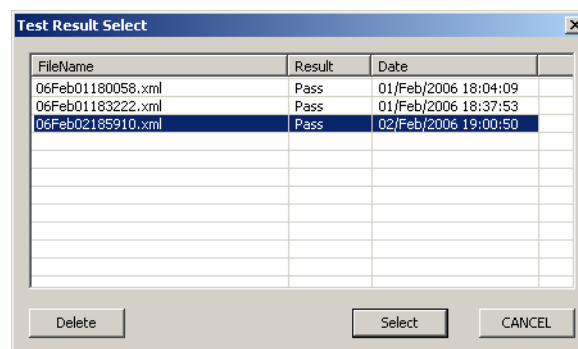
1. Click the **Results** button.
A results dialog box like the one in the figure below opens.



2. Click the **Detail** button for the test whose results are to be displayed.
The Results dialog box appears.

Changing the Displayed Test Results File and Deleting Test Results Files

1. Click the **Select** button in the Results dialog box.
The Results dialog box is displayed.

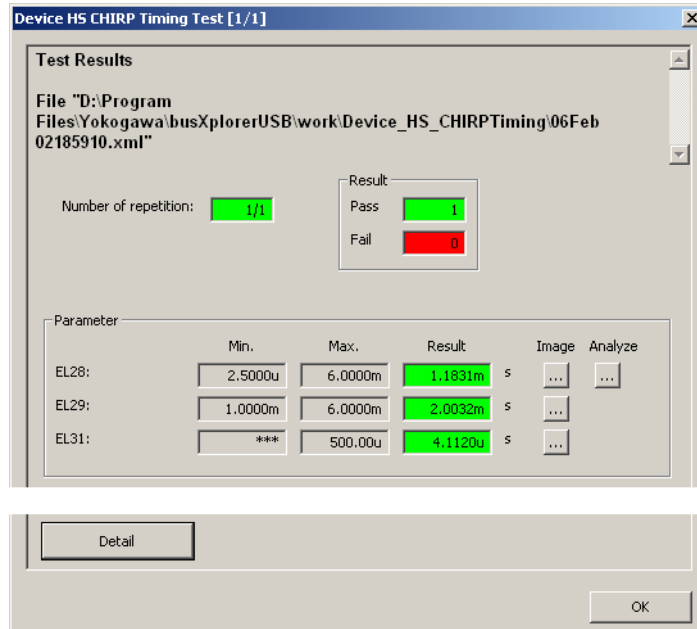


2. Click to select the file to delete or edit.
3. Click the **Delete** button to delete the displayed file, or click the **Select** button to edit the file.

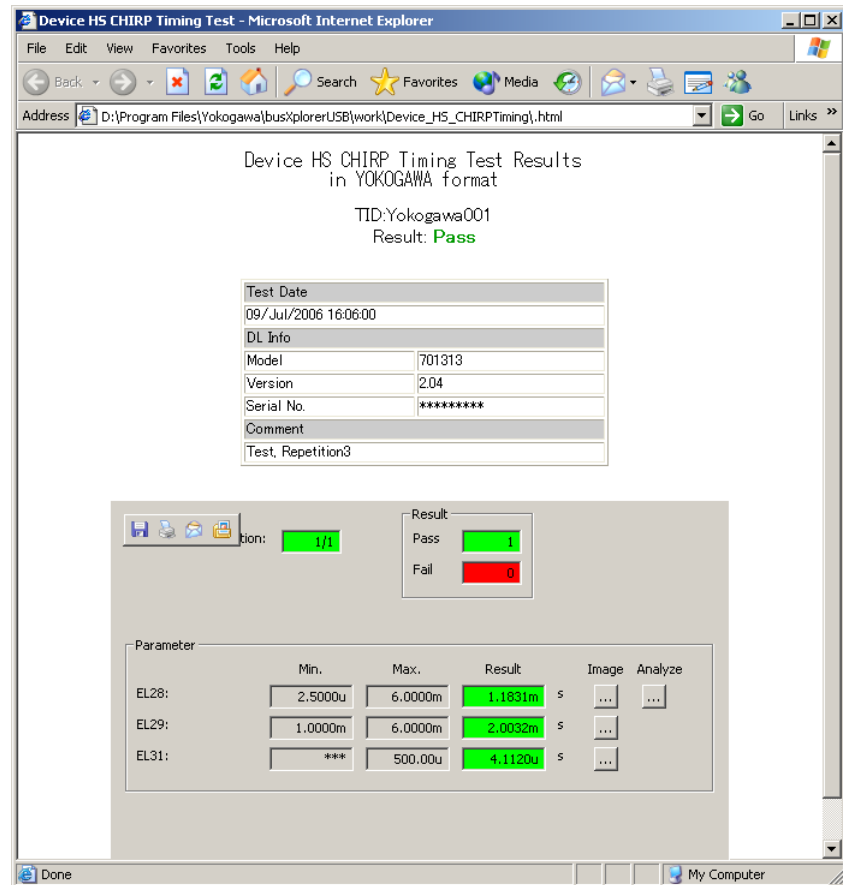
Explanation

Displaying Results

The test results currently selected from the test results files saved in the working folder can be displayed.

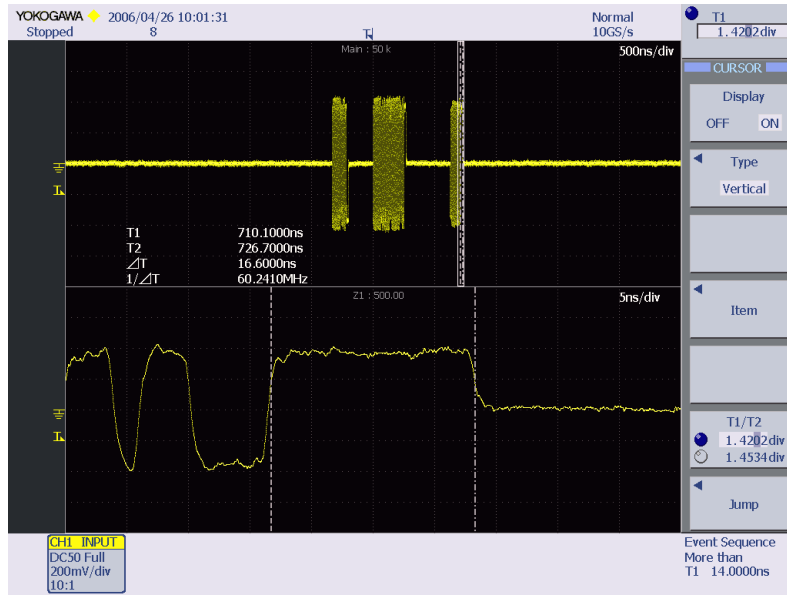


- When you click the Detail button, the Web browser launches and displays detailed test results.

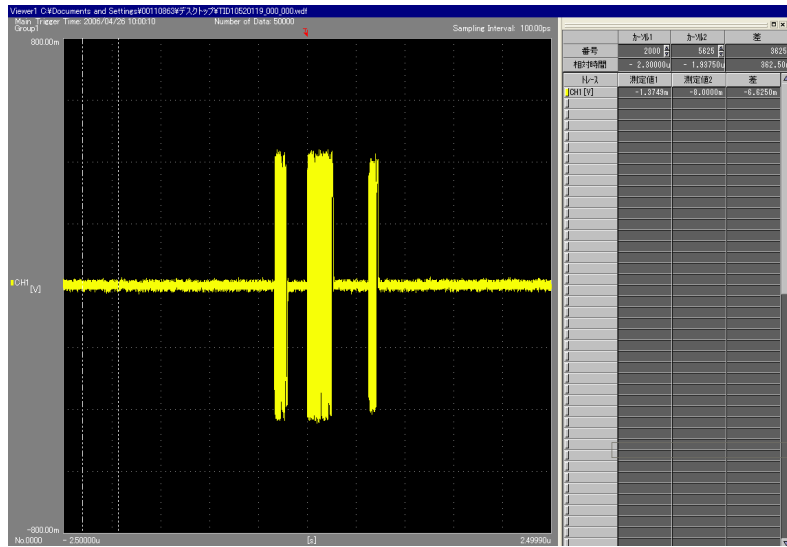


7 Displaying Results

- You can click the image button to display an image of the DL9240/DL9240L screen.



- Click the Analyze button to start Xviewer and display waveform data. Xviewer must be installed in advance. For information on installation and usage restrictions, see chapter 3, "Installing/Uninstalling the Software."



Note

- Tests for which the Image button, but not the Analyze button, is displayed in the results screen are analyzed using data measured in previous tests.

The screenshot shows a window titled "Device HS Packet Parameter Test [1/1]". It displays test results for a file named "D:\Program Files\Yokogawa\busXplorerUSB\work\Device_HS_PacketParameter\06Feb07200855.xml". The number of repetitions is 1/1. The overall result is Pass (1) and Fail (0). A table lists parameters with their minimum, maximum, and result values. The result column shows values like 31.200, 8.1600, 95.160, and 93.072. The unit column shows "bit". The Image and Analyze buttons are shown for each parameter. Annotations indicate that the unit toggles between bit and s, and that the two tests below (EL22) are also analyzed. A legend states: Image button = Displayed, Analyze button = Hidden.

Parameter	Min.	Max.	Result	unit	Image	Analyze
EL21:	31.000	33.000	31.200	bit	...	...
EL25:	7.0000	9.0000	8.1600	bit	...	...
EL22 (1st step):	8.0000	192.00	95.160	bit	...	...
EL22 (2nd step):	8.0000	192.00	93.072	bit	...	...

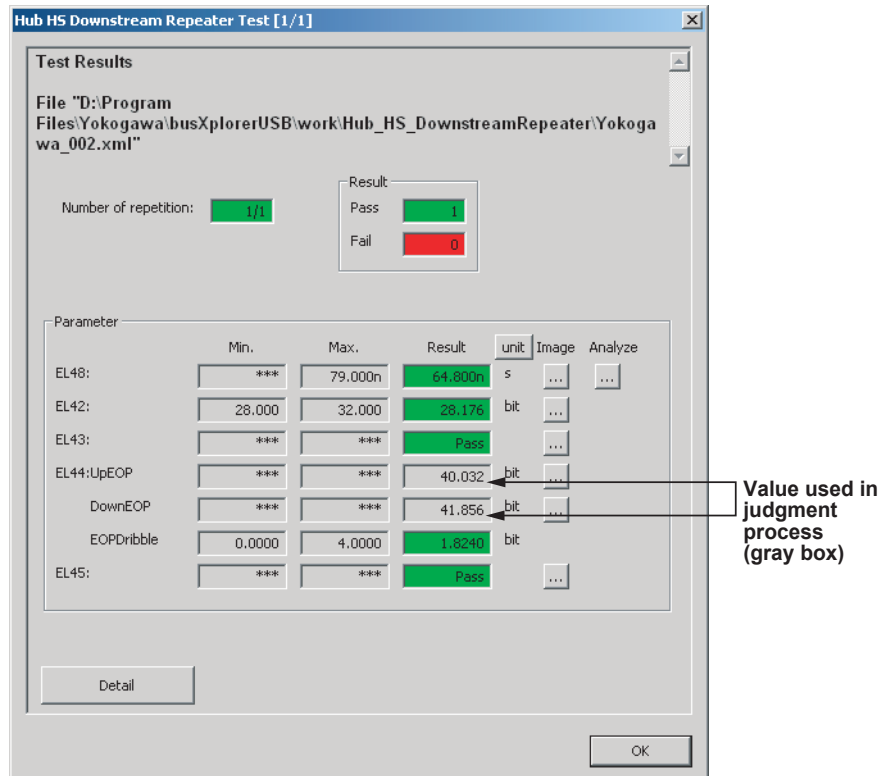
- If the results display box in the results screen is yellow, it indicates that the value is treated as a waiver.

The screenshot shows a window titled "Hub HS Upstream Receiver Sensitivity Test [1/1]". It displays test results for a file named "D:\Program Files\Yokogawa\busXplorerUSB\work\Hub_HS_UpstreamReceiverSensitivity\TID10520119_000.xml". The number of repetitions is 1/1. The overall result is Pass (0) and Fail (1). A table lists parameters with their minimum, maximum, and result values. The result column shows values like Pass, 160.00m, -180.00m, 137.00m, and 456.00m. The Image and Analyze buttons are shown for each parameter. Annotations indicate that a yellow box indicates a waiver value, a green box indicates a passed test, and a red box indicates a failed test.

Parameter	Min.	Max.	Result	Image	Analyze
EL18:	***	***	Pass	...	...
EL17:P-Voltage	***	150.00m	160.00m	...	...
N-Voltage	-150.00m	***	-180.00m	...	...
EL16:P-Voltage	100.00m	***	137.00m	...	...
N-Voltage	***	-100.00m	456.00m	...	...

7 Displaying Results

- Values in gray results boxes in the results screen are ones that were used in the judgment process.



Pass/Fail Display

The test results from the currently selected results file within the working folder are displayed under Result after testing is complete. If the test was passed, the results box turns green and the word Pass is displayed. If it was failed, the results box turns red and the word Fail is displayed. If the test has yet to be executed at least once, the results box is gray and contains three asterisks (***)

Changing the Displayed Test Results File and Deleting Test Results Files

If tests are executed more than once, a results file is created in the working folder for each instance of the test. With results display, you can change the results file displayed by busXplorer-USB, or delete results file stored in the working folder.

8 Troubleshooting and Maintenance

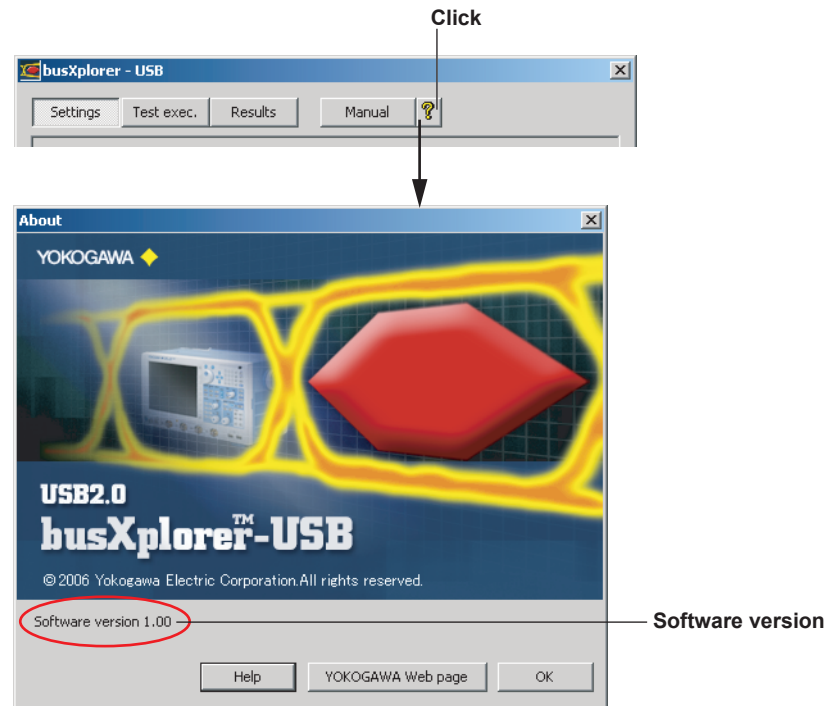
Troubleshooting

Description	Possible Problem/Corrective Action
The Yokogawa Web site does not appear.	The PC you are using may not be connected to the internet.
The message, "Close all unneeded applications" appears.	Not enough memory is available for the program. Reduce the number of loaded waveforms or exit other applications.

9 Viewing Version Information

Procedure

Click the  button. The busXplorer-USB version information dialog box is displayed.




Explanation

The busXplorer-USB name and version are displayed.

10 Starting Online Help

Procedure

Click , then choose Help > User's manual. If Acrobat Reader is installed in the PC, it launches, and a pdf file of the busXplorer-USB manual is displayed.



Explanation

Online Help

You can display a pdf file of the busXplorer-USB user's manual. If a notice of alterations has been issued, you can choose Help > Notice of Alteration in the toolbar to display a pdf file of the notice.

Displaying Updated User's Manuals, Notices of Alteration, and Test Procedures

If you copy pdf files of the following file names to the installation directory specified in step 8 on page 13, you can display the latest user's manuals and notices of alterations with the online help function.

- Filename of the most recent busXplorer-USB user's manual: IM701985-61E.pdf (Software)
 - Filename of the most recent busXplorer-USB notice of alterations: Alterations.pdf
- Copying an updated test procedure in the same manner enables you to display the procedure by clicking the Manual button.
- Filenames of the most recent test procedures: IM701985-62E.pdf (Device),
IM701985-63E.pdf (Host),
IM701985-64E.pdf (Hub)

PDF file versions of the latest user's manuals, notices of alteration, and test procedures can be downloaded from the following Web site.

<http://www.yokogawa.com/tm/busXplorer-USB>


Note

Adobe Reader by Adobe Systems is required to open PDF files. You can download Adobe Reader from the following Web page.

<http://www.adobe.com/products/acrobat/readstep2.html>

11 Viewing the Yokogawa Electric Corp. Web Site

Procedure

Click , then choose YOKOGAWA Web page > Test & Measurement or YOKOGAWA Web page > busXplorer-USB. The Yokogawa Web site appears.



Explanation

If the PC you are using is connected to the internet, the Yokogawa Web site is displayed.

Test & Measurement: The Yokogawa Test & Measurement home page appears.

busXplorer-USB: The busXplorer-USB product information page is displayed.

12 Updating the Software

Procedure

The busXplorer-USB update file can be obtained and installed in the following manner.

1. Open the busXplorer Web page (<http://www.yokogawa.com/tm/busXplorer-USB>) by following the procedure in chapter 11, "Viewing the Yokogawa Web Site."
2. Download the latest software file to the PC in which busXplorer-USB is installed.
3. Unzip/decompress the downloaded latest software file and install it.

Explanation

To update the software, you must first download the latest update file to the PC on which busXplorer-USB is installed.

Note

You must uninstall your existing version of busXplorer-USB before installing an updated version. For instructions on uninstalling your existing version, see page 17.
