Leader

FRAME CAPTURE VIEWER

Instruction Manual

Read this instruction manual carefully, and use the product safely.
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1. SPECIFICATIONS

1.1 General

This software is an application for loading frame data (.frm files) saved using the frame capture function of a LEADER MULTI MONITOR into a PC and performing data analysis.

1.2 Features

• Single frame data of video signals is displayed two-dimensionally with lines and samples.
• You can specify any line or sample number and display that point.
• Data searching as possible in frame data.
• You can search for errors in frame data detected by the MULTI MONITOR.

1.3 Applicable Data

Frame data saved using the following frame capture function
LV5600, LV7600, LV 5490, LV 5770A, LV 5770, LV 5800A, LV 5800

1.4 Operating Environment

Windows 10, Windows 7 Professional (32 bit/64 bit)

1.5 About the Software

• LEADER ELECTRONICS CORP. holds all copyrights to the software.
• Software installation is to be performed under the customer’s responsibility.
• It is prohibited to decompile, disassemble, decrypt, extract, or otherwise reverse engineer the software.
• You may not copy, modify, or distribute the software to third parties, or use it for commercial purposes (rental, pseudo rental, selling to third parties, and so on).
• The software is subject to change without prior notice.
2. INSTALLATION AND UNINSTALLATION

2.1 Installation

1. Run the installation program “FrameCaptureViewerInstaller v*.**.msi”.
2. Click Next.

3. Set the installation destination, and click Next.
2. INSTALLATION AND UNINSTALLATION

4. Click Next.

![Installation 3](image)

Figure 2-3 Installation 3

5. Click Close to finish the installation.

![Installation 4](image)

Figure 2-4 Installation 4
2. INSTALLATION AND UNINSTALLATION

2.2 Uninstallation

Under Programs and Features in Control Panel, select “FrameCaptureViewer v *.*.*”, and click Uninstall.

![Uninstallation Figure]

Figure 2-5 Uninstallation
3. HOW TO USE

3.1 Starting the Program

In the installation folder, open “FrameCaptureViewer.exe”. When a file selection dialog box opens, select the frame data you want to view, and click Open.

![File selection dialog box](image)

Figure 3-1 File selection dialog box

The main window appears.

![Main window](image)

Figure 3-2 Main window

3.2 Closing the Program

From the File menu, select Exit. Or, click in the upper right of the main window.
4. USER INTERFACE

4.1 File menu

Click the File menu or press Alt+F to display the File menu.

- **Open**
  A file selection dialog box opens where you can select and load frame data.

- **Export**
  Loaded frame data is exported in CSV format. Under the General tab in the Option window, selecting the “Export with Decimal” check box causes the data to be output in decimal notation. If you do not select the check box, data is output in hexadecimal notation.

- **Exit**
  Closes the application.
4. USER INTERFACE

4.2 View Menu

Click the View menu or press Alt+V to display the View menu.

![View menu]

- **Data align**
  Select the data display method in cells.

  - **Left (L):** Data is displayed left-justified.
  - **Center (C):** Data is displayed center-justified.
  - **Right (R):** Data is displayed right-justified.

![Data align menu]

- **File information**
  A file information window opens, and information about the loaded frame data is displayed.

![File information window]

Figure 4-4 File information window
4. USER INTERFACE

- **Line/Sample jump**
  
  A line/sample jump window opens. You can specify a line or sample and jump to that point.

  ![Line/sample jump window](image)

  Figure 4-5 Line/sample jump window

- **Data search**
  
  A data search window opens. If you select Direction Up and click Search, data is searched from the current cell toward smaller line numbers. If you select Direction Down and click Search, data is searched from the current cell toward larger line numbers.

  ![Data search window](image)

  Figure 4-6 Data search window

- **Tool Bar**
  
  Shows or hides the toolbar.

- **Status Bar**
  
  Shows or hides the status bar.
4. USER INTERFACE

4.3 Tools Menu

Click the Tools menu or press Alt+T to display the Tools menu.

![Tools menu screenshot]

- Options - General tab

Set the frame data display method and error detection.

![Options window (General tab) screenshot]

Figure 4-7 Tools menu

Figure 4-8 Options window (General tab)
4. USER INTERFACE

1) Display
Select the method or displaying the loaded frame data using (option buttons).
Note that for the following frame data, some items are not selectable.

<table>
<thead>
<tr>
<th>Standard</th>
<th>Sampling structure/quantization accuracy</th>
<th>Items that are not selectable</th>
</tr>
</thead>
<tbody>
<tr>
<td>3G-SDI Level A</td>
<td>YCbCr (422) / 10bit</td>
<td>Component</td>
</tr>
<tr>
<td>3G-SDI Level B – DL</td>
<td>YCbCr (422) / 10bit</td>
<td>Stream 1/2</td>
</tr>
<tr>
<td>HD DUAL LINK</td>
<td>YCbCr (422) / 10bit</td>
<td>Link A/B</td>
</tr>
<tr>
<td>3G-SDI Level A QUAD LINK</td>
<td>YCbCr (422) / 10bit</td>
<td>Component</td>
</tr>
<tr>
<td>3G-SDI Level B QUAD LINK</td>
<td>YCbCr (422) / 10bit</td>
<td>Stream 1/2</td>
</tr>
</tbody>
</table>

* Displayed as HD QUAD LINK on the LV5600 or LV7600 6G.
* Displayed as 3G-SDI Level A QUAD LINK on the LV5490SER06, LV5600, or LV7600 12G.

2) Line/Sample Header Change
Changes the vertical and horizontal display of frame data.
If this check box is not selected, line numbers are displayed in the vertical direction
and the samples in the horizontal direction.
If this check box is selected, samples are displayed in the vertical direction and the
line numbers in the horizontal direction.

3) GridDisplay
Set whether to display grid lines.

4) Export with Decimal
Set the format of the data output by using Export of the File menu.
If this check box is selected, the data is output in decimal notation. Otherwise, it is
output in hexadecimal notation.

5) ErrorDetection
Frame data errors detected by the product are displayed in the specified color.
● Options - Font/Color tab

Set data display parameters, such as the font, font size, text color, and background color.

![Options window (Font/Color tab)](image)

6) Font

Set the font and font size of the data displayed in the main window.

7) Line/Sample Header

Set the background color and font color used in the header display area containing LINE No. and SAMPLE of the main window.

8) Line/Sample Data

Set the background color and font color used in the frame data display area of the main window.
4. USER INTERFACE

- **Error search**
  This function is enabled when the ErrorDetection check box is selected under Options. If you select Direction Up and click Search, error data is searched from the current cell toward smaller line numbers. If you select Direction Down and click Search, error data is searched from the current cell toward larger line numbers.

![Figure 4-10 Error search window](image)

4.4 **Help Menu**

Click the Help menu or press Alt+H to display the Help menu.

![Figure 4-11 Help menu](image)

- **About FrameCapture Viewer**
  A version view window opens, and you can view the application version.

![Figure 4-12 Version view window](image)
4. USER INTERFACE

4.5 Tool Bar

The behavior when each button is clicked is described below.

1) A file selection dialog box appears.
2) Set the data display method in cells.
3) A file information window appears.
4) A line/sample jump window appears.
5) A data search window appears.
6) An option window appears.
7) An error search window appears. (*1)
8) A version view window appears.

*1 You can click this when ErrorDetection is enabled.
4. USER INTERFACE

4.6 Status Bar

Format, display, and the current date and time are indicated.
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