

Compact Digital Storage Oscilloscope and Digital Multimeter

GDS-200 and GDS-300 Series

OPENWAVE QUICK START GUIDE

Version 1.01



ISO-9001 CERTIFIED MANUFACTURER

GW INSTEK

This manual contains proprietary information, which is protected by copyright. All rights are reserved. No part of this manual may be photocopied, reproduced or translated to another language without prior written consent of Good Will company.

The information in this manual was correct at the time of printing. However, Good Will continues to improve products and reserves the rights to change specification, equipment, and maintenance procedures at any time without notice.

Good Will Instrument Co., Ltd.
No. 7-1, Jhongsing Rd., Tucheng Dist., New Taipei City 236, Taiwan.

Table of Contents

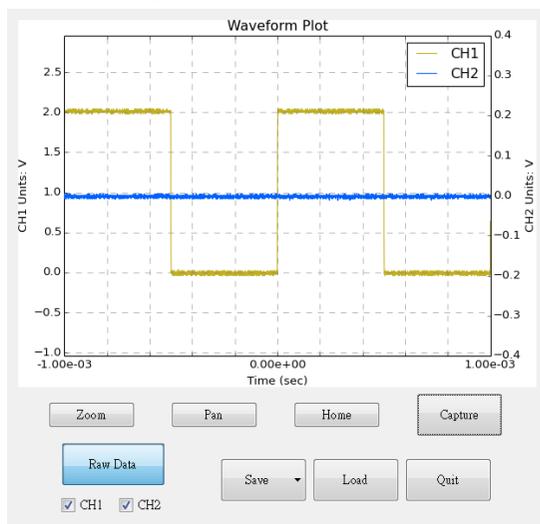
GETTING STARTED	4
Overview	5
Requirements.....	5
Main Features	5
Running OpenWave.....	6
OPERATION	8
Remote Capture.....	9
Capture Image.....	9
Capture Raw Data.....	10
Zooming and Panning Images or Plotted Data	11
Save/Load/Quit	13
Save Screenshot or Raw Data to Disk	13
Load Raw Data from Disk	16
Quit Open Wave.....	17

GETTING STARTED

OpenWave is a remote waveform and image capture program for the GDS-200 and GDS-300, licensed under the GNU Lesser General Public License.

OpenWave is able to remotely capture and save screen shots and raw waveform data from the GDS-200/300. OpenWave also allows you to zoom and pan waveforms using the GUI.

Raw waveform data can also be loaded and plotted using this software.



Overview

Requirements

The following lists the requirements to run the OpenWave software.

Applicable DSO	GDS-200, GDS-300
Applicable OS	Windows XP, 7, 8 (32 bit and 64 bit)

Main Features

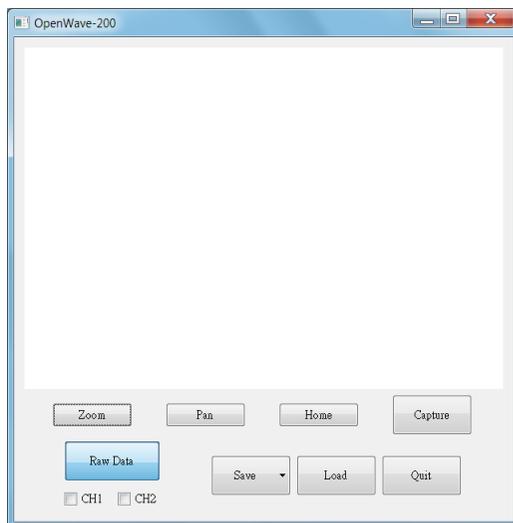
Features	<ul style="list-style-type: none">• Remote capture or screenshots and raw data• Load raw data• Plot raw data• Save captured screenshots (PNG format) and waveform data (CSV)
----------	---

Running OpenWave

Background OpenWave is a standalone program and doesn't need to be installed. To run OpenWave, simply run the OpenWave executable.

- Steps**
1. Connect the GDS-200/300 to the PC using the Type A - Mini-B USB cable.
 2. Turn the DSO on.
 3. Double click on OpenWave.exe 
 4. OpenWave will appear after displaying the GNU LGPL.
-

OpenWave Initial Startup Example





Note

If OpenWave fails to start, reconnect the GDS-200/300 to the PC and try again. When a connection is successfully established “GDS-310 connected!” will be shown on the initial splash screen.

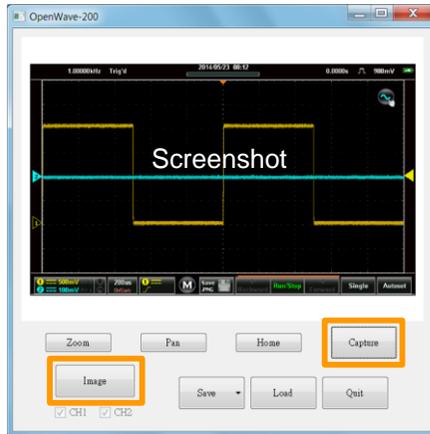
PERATION

Remote Capture	9
Capture Image.....	9
Capture Raw Data.....	10
Zooming and Panning Images or Plotted Data.....	11
Save/Load/Quit.....	13
Save Screenshot or Raw Data to Disk	13
Load Raw Data from Disk	16
Quit Open Wave.....	17

Remote Capture

Capture Image

- Steps
1. Ensure the Image/Raw Data toggle switch is set to Image.
 2. Press the Capture key.
 3. A screenshot of the display is shown at the top of the screen.

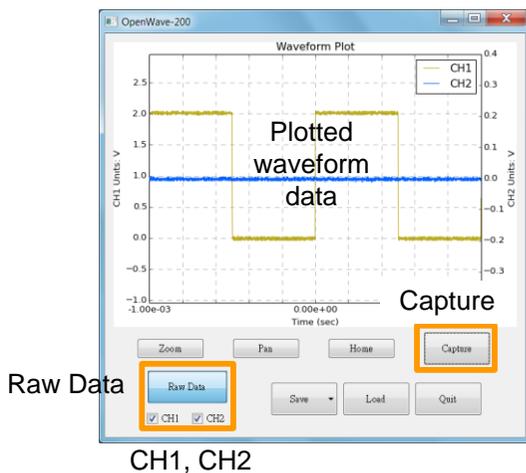


Capture

Image

Capture Raw Data

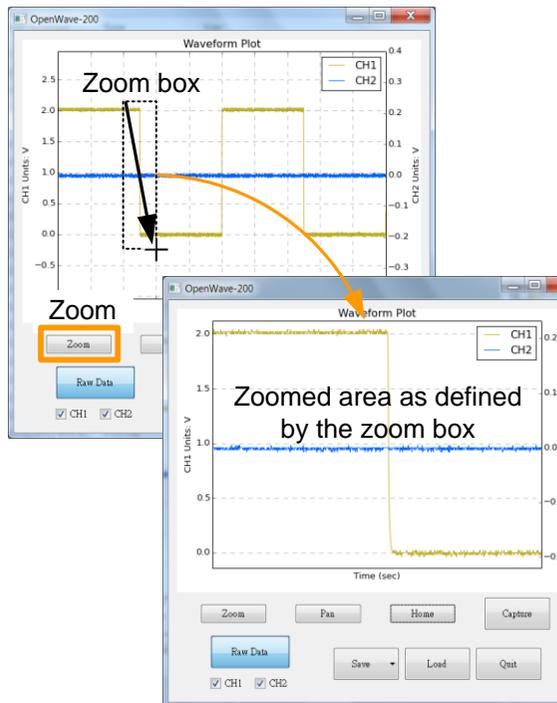
- Steps
1. Ensure the Image/Raw Data toggle switch is set to Raw Data.
 2. Choose which waveforms to download by checking the CH1 and/or CH2 checkboxes.
 3. Press the Capture key.
 4. The waveform data will be downloaded and plotted on the display.



Zooming and Panning Images or Plotted Data

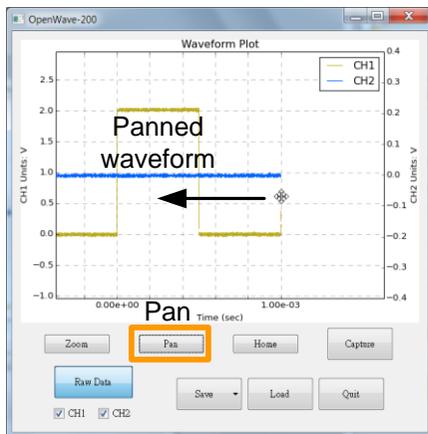
Background The Zoom and Pan function works for both images and plotted data.

- Zoom**
1. Click the Zoom key.
 2. Using the mouse, drag and drop the zoom box around the area of the waveform that you wish to zoom in on.
 3. The zoomed waveform will appear on the screen.



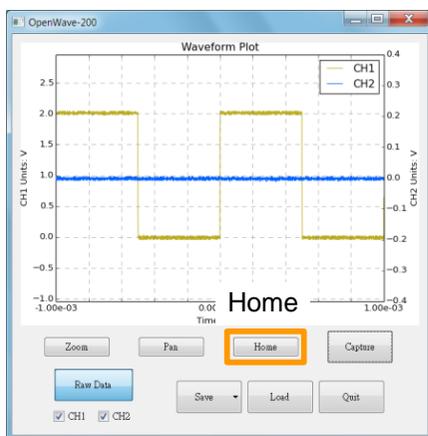
Pan

1. Click the Pan key.
2. Pan the display by dragging and dropping with the mouse.
3. The display will pan accordingly.



Home

Pressing the Home key will reset a zoomed or panned image/plotted data.



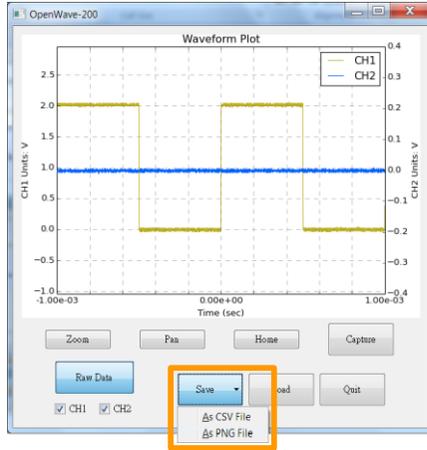
Save/Load/Quit

Save Screenshot or Raw Data to Disk

Background After a screenshot or raw waveform data has been captured by OpenWave, it can be saved to disk.

- Image files (screenshots) are saved as PNG (tmp.png).
 - Raw Data is saved as CSV (dso.csv).
 - Plotted data can also be saved as an image file (rawdata.png).
 - Files are overwritten by new files.
 - Files are saved to the same directory that OpenWave is located in.
-

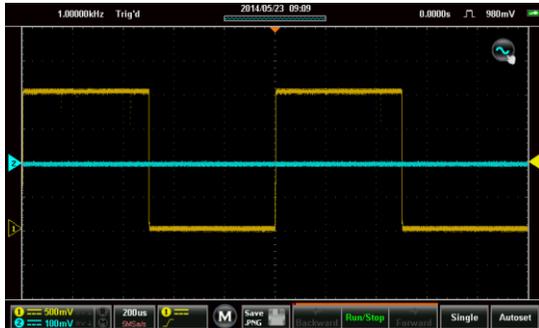
- Steps**
1. Click the Save key.
 2. Select the file format for Raw Data, CSV or PNG. Only PNG is available for image files.
 3. The file will be saved to the OpenWave directory.



Save

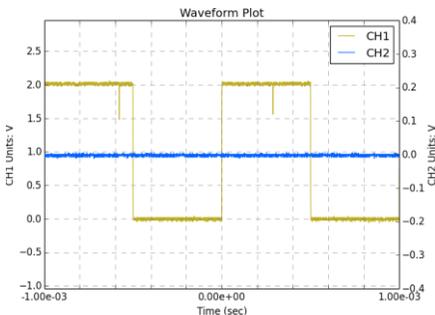
Screenshot Example

tmp.png



Raw Data Image
Example

rawdata.png



Raw Data CSV
Example

dso.csv

Format	0.2		
Memory Length	10000	Memory Length	10000
IntpDistance	0	IntpDistance	0
Trigger Address	4999	Trigger Address	4999
Trigger Level	9.80E-01	Trigger Level	9.80E-01
Source	CH1	Source	CH2
Vertical Units	V	Vertical Units	V
Vertical Units Div	0	Vertical Units Div	0
Vertical Units Extend Div	15	Vertical Units Extend Div	15
Label		Label	
Probe Type	0	Probe Type	0
Probe Ratio	1.00E+00	Probe Ratio	1.00E+00
Vertical Scale	5.00E-01	Vertical Scale	1.00E-01
Vertical Position	-9.60E-01	Vertical Position	0.00E+00
Horizontal Units	S	Horizontal Units	S
Horizontal Scale	2.00E-04	Horizontal Scale	2.00E-04
Horizontal Position	0.00E+00	Horizontal Position	0.00E+00
Horizontal Mode	Main	Horizontal Mode	Main
SincET Mode	Real Time	SincET Mode	Real Time
Sampling Period	2.00E-07	Sampling Period	2.00E-07
Horizontal Old Scale	2.00E-04	Horizontal Old Scale	2.00E-04
Horizontal Old Position	0.00E+00	Horizontal Old Position	0.00E+00
Firmware	V1.00	Firmware	V1.00
Time	#####	Time	#####
Mode	Fast	Mode	Fast
Waveform Data		Waveform Data	
	53		0
	69		0
	79		-1
	88		0
	91		-1
	94		-1
	96		-2



Note

Please see the GDS-200/300 user manual for details on the CSV file format.

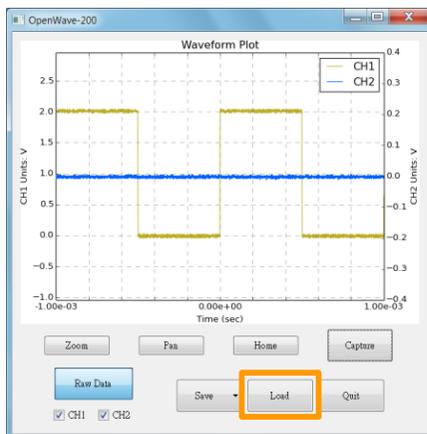
Load Raw Data from Disk

Background

If raw waveform data has been saved using OpenWave, the CSV file can be loaded and plotted again.

Steps

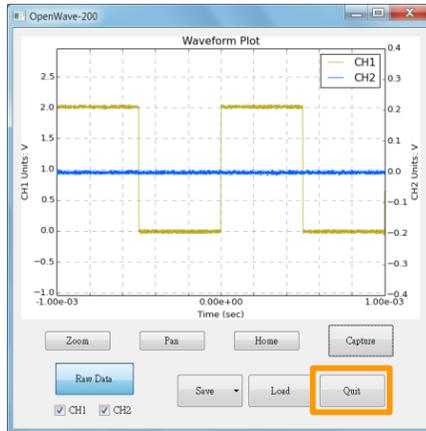
1. Click the Load key.
2. Select the dso.csv file from the file manager.
3. The file will be loaded and plotted in OpenWave.



Load

Quit Open Wave

- Steps
1. Click the Quit key.



Quit

