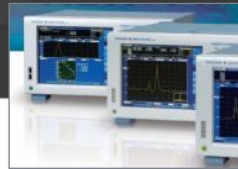


# Xviewer Advanced File Utility & Real Time Transfer /JS01

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Please read slide notes



QUALITY ■ INNOVATION ■ FORESIGHT

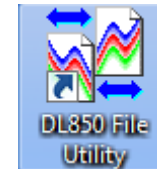


# /JS01 Software Contents

- Software comes in two parts: File Utility and Real-Time File Transfer
- Installing Xviewer 1.71 or 1.72 will install these programs but requires valid license Key to open

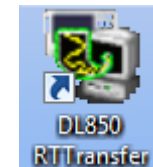
## File Utility

- File Merging: Time Series and Channel Merge
- File Division: Equal Division and Clipping
- File Format Conversion
- Finalization



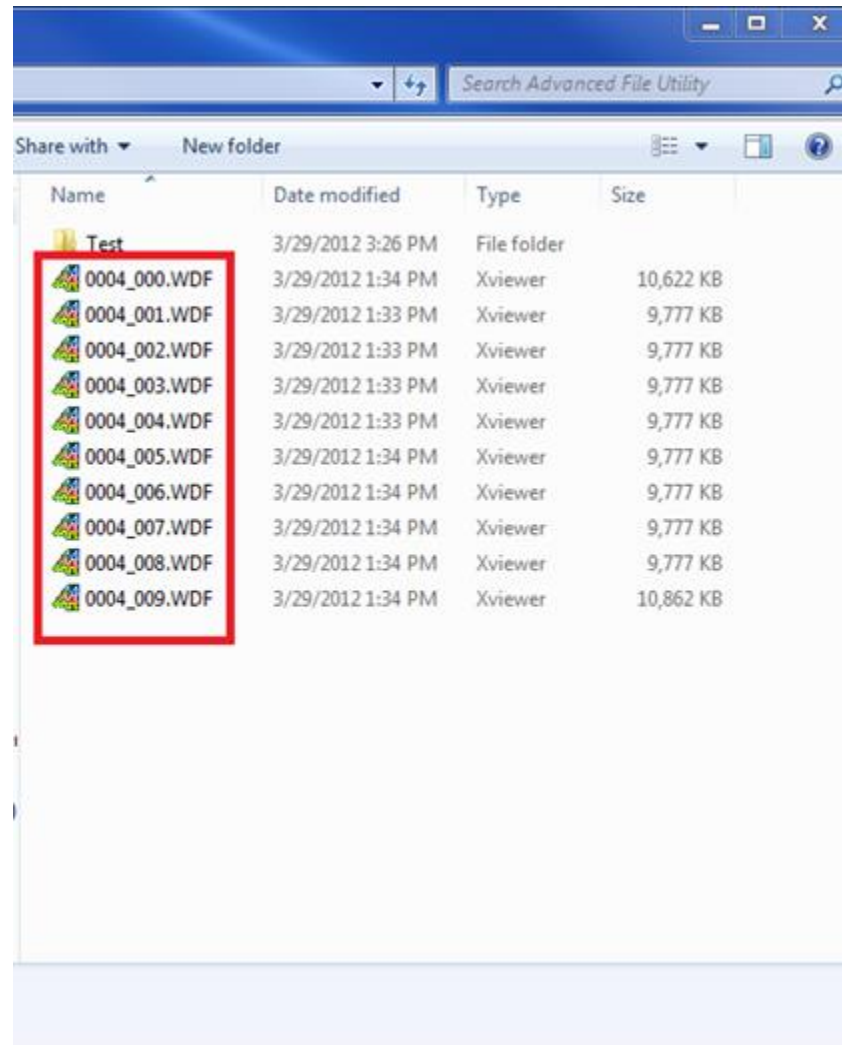
## Real-Time File Transfer

- Transfer
- File List
- Log Display



# Time Series File Merge

HD Record with File Divide ON saved the waveform data into 10 WDF files



# Time Series Merge Setup

DL850FileUtility

File Merge | File Divide | Format Conversion | Finalize

Merge Mode: Time Series

Input File: Browse Update

File Name	Model Name	File Type	Sample Rate	Measuring Time	Triggered Time	Measuring Start Time	Measuring End Time	Record Length	File Name
0004_000	DL850V	Real-Ti...	500000	00:01:40.10		2012/03/29 13:33:01.83	2012/03/29 13:34:41.93	50,050,003	Don

Output File:

Cancel All Cancel

Browse Execute

1. Click on File Merge Tab

2. Select Time Series

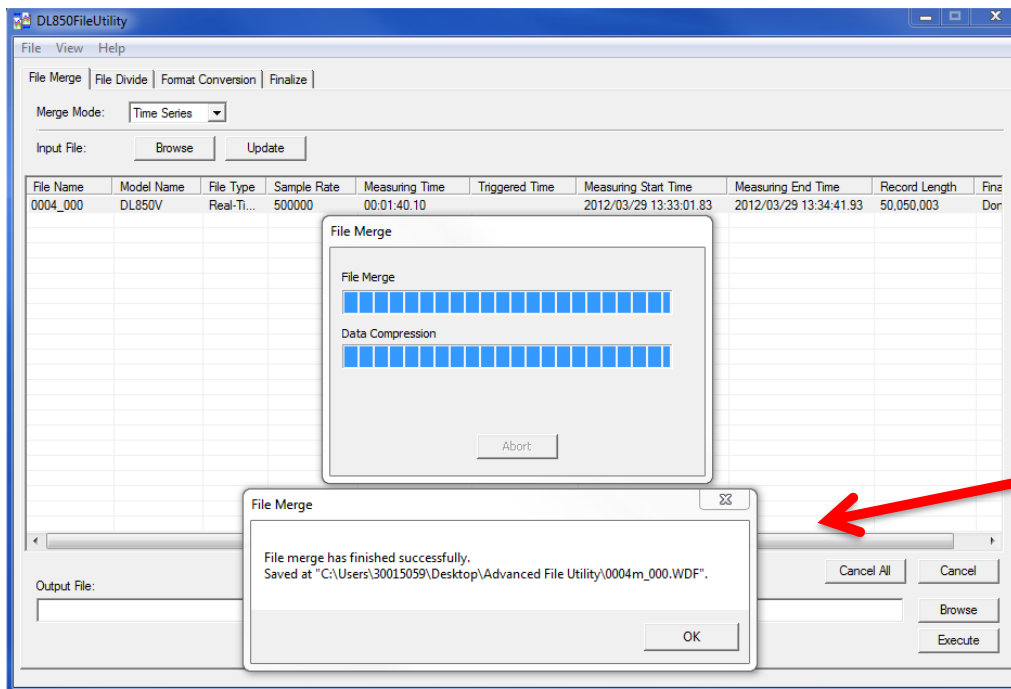
3. Browse for File and Update

4. Highlight File

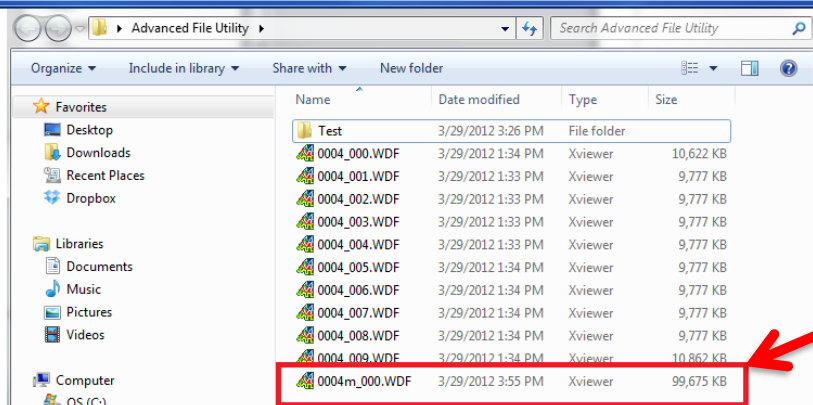
5. Set Output File Destination

6. Execute File Merge

# Time Series Merge Completion



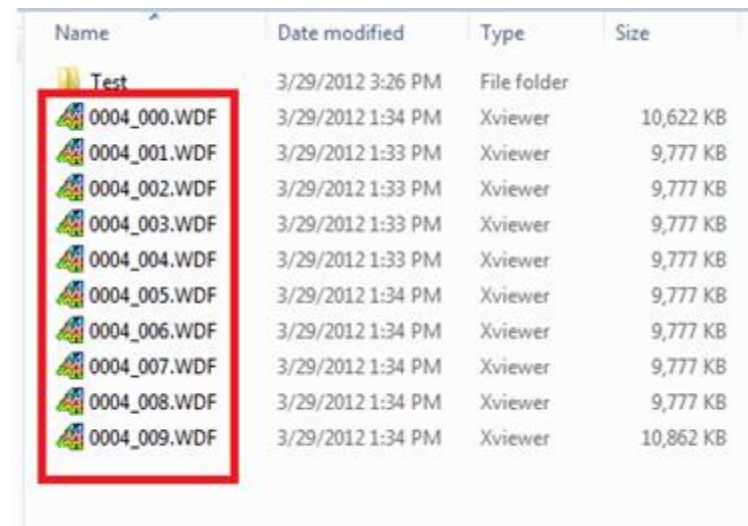
Confirm successful file merge and note the save destination



New merged file must be in the same folder destination with the original files

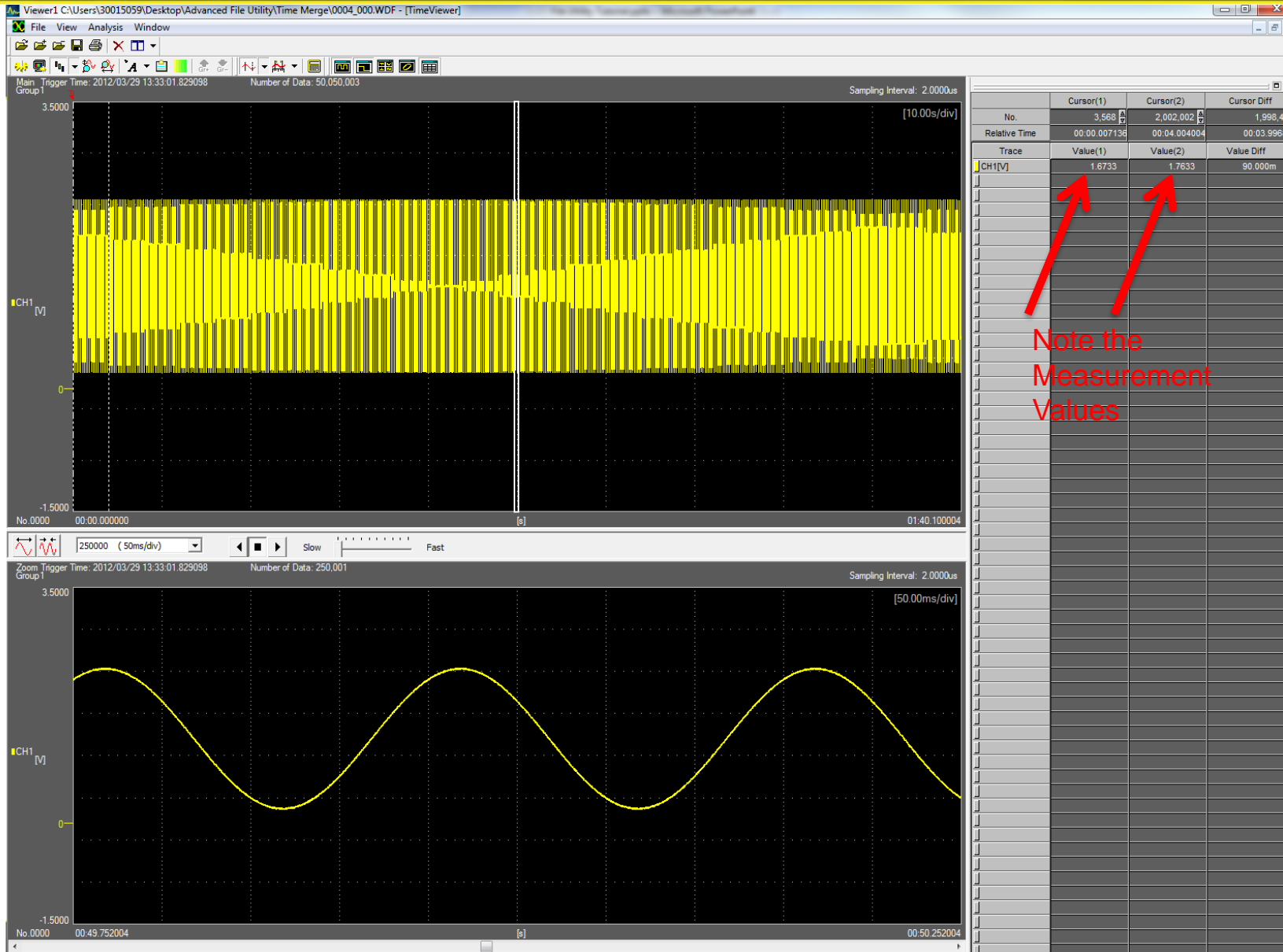
# Time Series File Merge

- Merge multiple files into a single file if the DL850/DL850V saved the waveform data into multiple file divisions
- Max single file size is 2GB
- Merged file is exceeding 2GB will be saved into multiple 2GB files
- Files saved through dual capture cannot be merged
- Merge up to 100 files
- Files must meet the following conditions:
  - Sample Rate is the same
  - Number of channels is the same
  - Measurement point timestamps are sequential between the files
  - Cannot merge files saved at different times
- Only applies to files:
  - Divided and saved through hard disk recording
  - Divided by the File Utility Program
- Currently Xviewer automatically time merges divided files

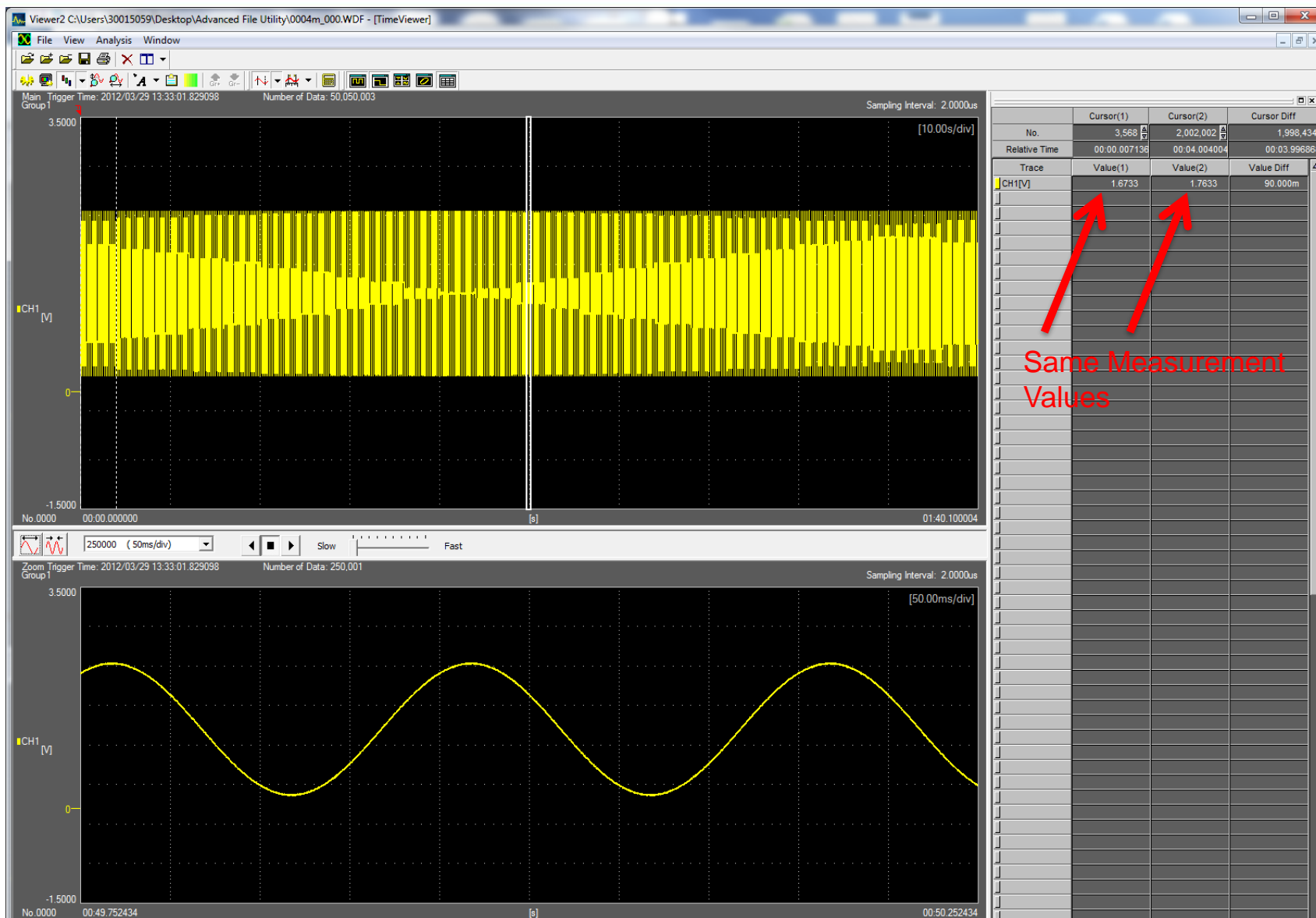


Name	Date modified	Type	Size
Test	3/29/2012 3:26 PM	File folder	
0004_000.WDF	3/29/2012 1:34 PM	Xviewer	10,622 KB
0004_001.WDF	3/29/2012 1:33 PM	Xviewer	9,777 KB
0004_002.WDF	3/29/2012 1:33 PM	Xviewer	9,777 KB
0004_003.WDF	3/29/2012 1:33 PM	Xviewer	9,777 KB
0004_004.WDF	3/29/2012 1:33 PM	Xviewer	9,777 KB
0004_005.WDF	3/29/2012 1:34 PM	Xviewer	9,777 KB
0004_006.WDF	3/29/2012 1:34 PM	Xviewer	9,777 KB
0004_007.WDF	3/29/2012 1:34 PM	Xviewer	9,777 KB
0004_008.WDF	3/29/2012 1:34 PM	Xviewer	9,777 KB
0004_009.WDF	3/29/2012 1:34 PM	Xviewer	10,862 KB

# Xviewer Original Waveform



# Xviewer Merged Waveform



# Channel Merge Setup

DL850FileUtility

File View Help

1. Click on File Merge Tab

File Merge | File Divide | Format Conversion | Finalize

Merge Mode: Channel Merge Condition  Absolute Time

2. Select Channel and Merge Condition

Input File: Browse Update

3. Browse for File and Update

File Name	Model Name	File Type	Sample Rate	Measuring Time	Triggered Time	Measuring Start Time	Measuring End Time	Record Length	File
0001	DL850V	Triggered	100	00:00:10.01	2011/11/11 14:...	2011/11/11 14:50:06.06	2011/11/11 14:50:16.06	1,001	Dor
0002	DL850V	Triggered	100	00:00:10.01	2011/11/11 14:...	2011/11/11 14:50:13.19	2011/11/11 14:50:23.19	1,001	Dor

4. Highlight Files to be merged

5. Set Output File Destination

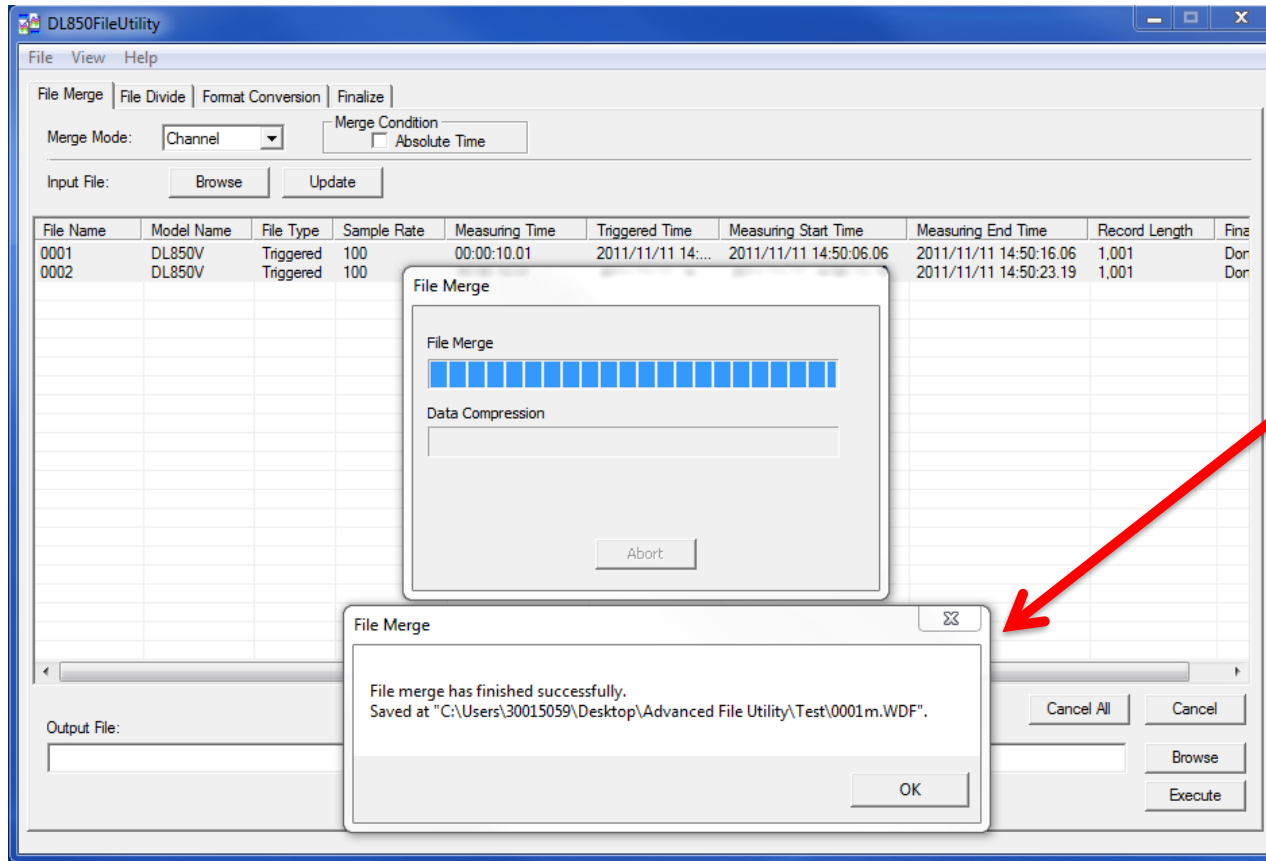
Output File:

6. Execute File Merge

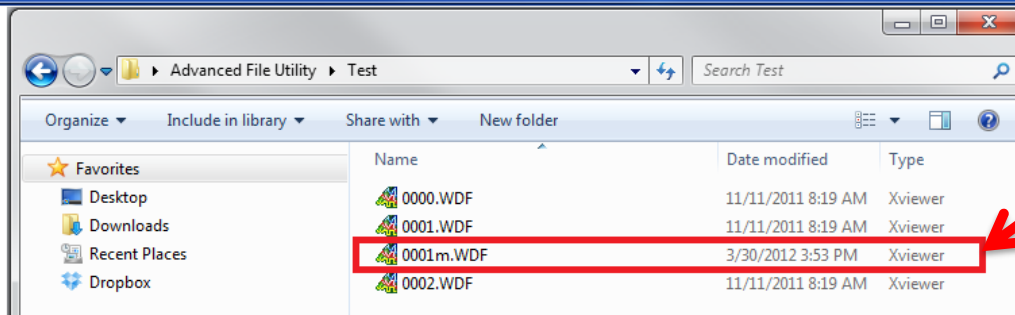
Cancel All Cancel

Browse Execute

# Channel Merge Completion



Confirm successful file merge and note the save destination

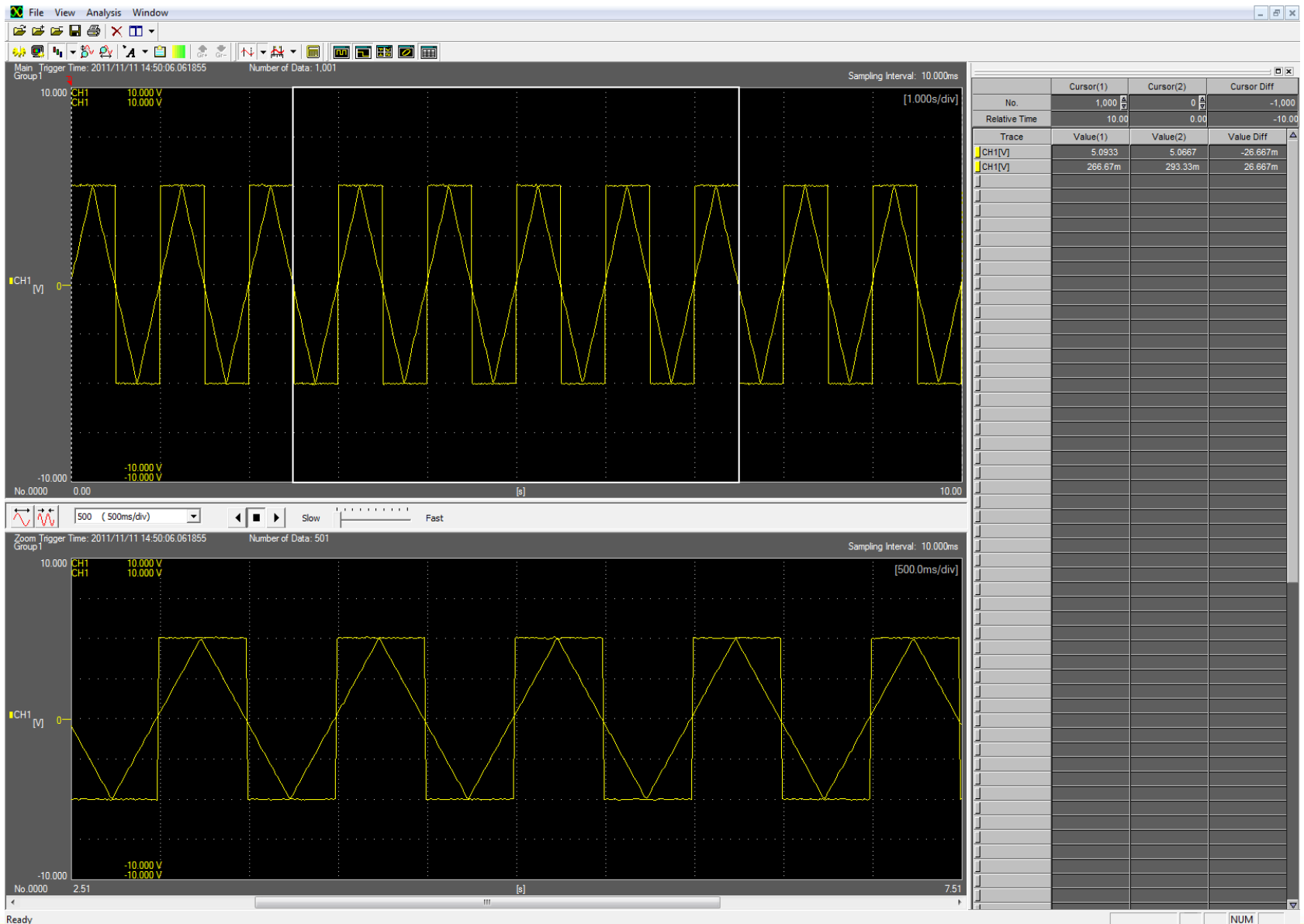


New merged file must be in the same folder destination with the original files

# Channel Merge

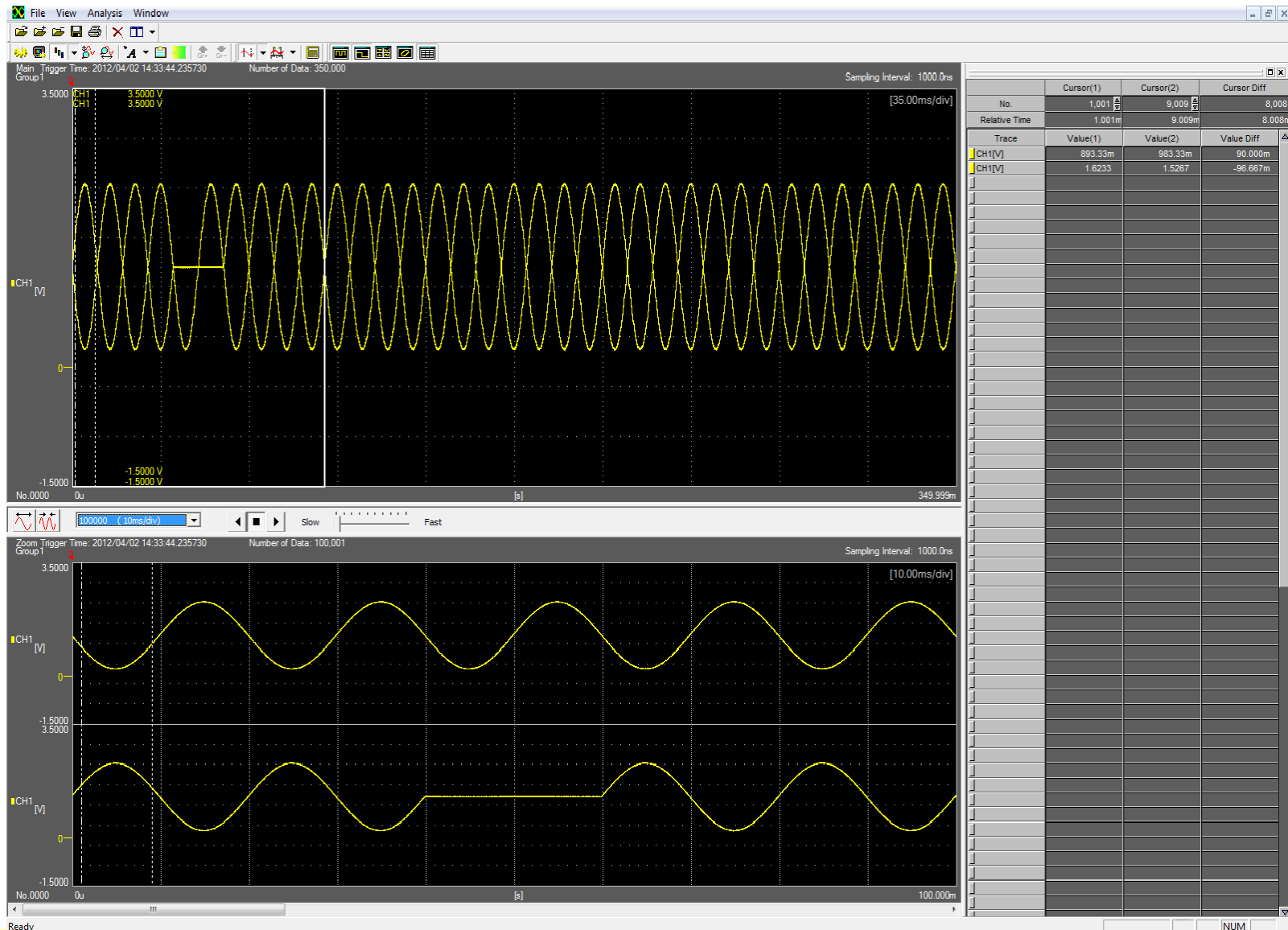
- Useful for:
  - viewing waveforms from many different channels in a single window
  - merging files saved by different DL850/DL850Vs into a single file
- Up to 8 files or 128 max channels can be merged
- Files that cannot be merged:
  - saved through dual capture
  - record length is different
  - containing data measured by the 16-CH Voltage Input or CAN Bus Monitor Module
- Files must meet the following conditions:
  - sample rate is the same
  - saved through DL850/DL850V hard disk recording
  - saved through the use of the normal trigger feature
- File input order does not affect the merged data but will affect the output file name

# Xviewer Channel Merge

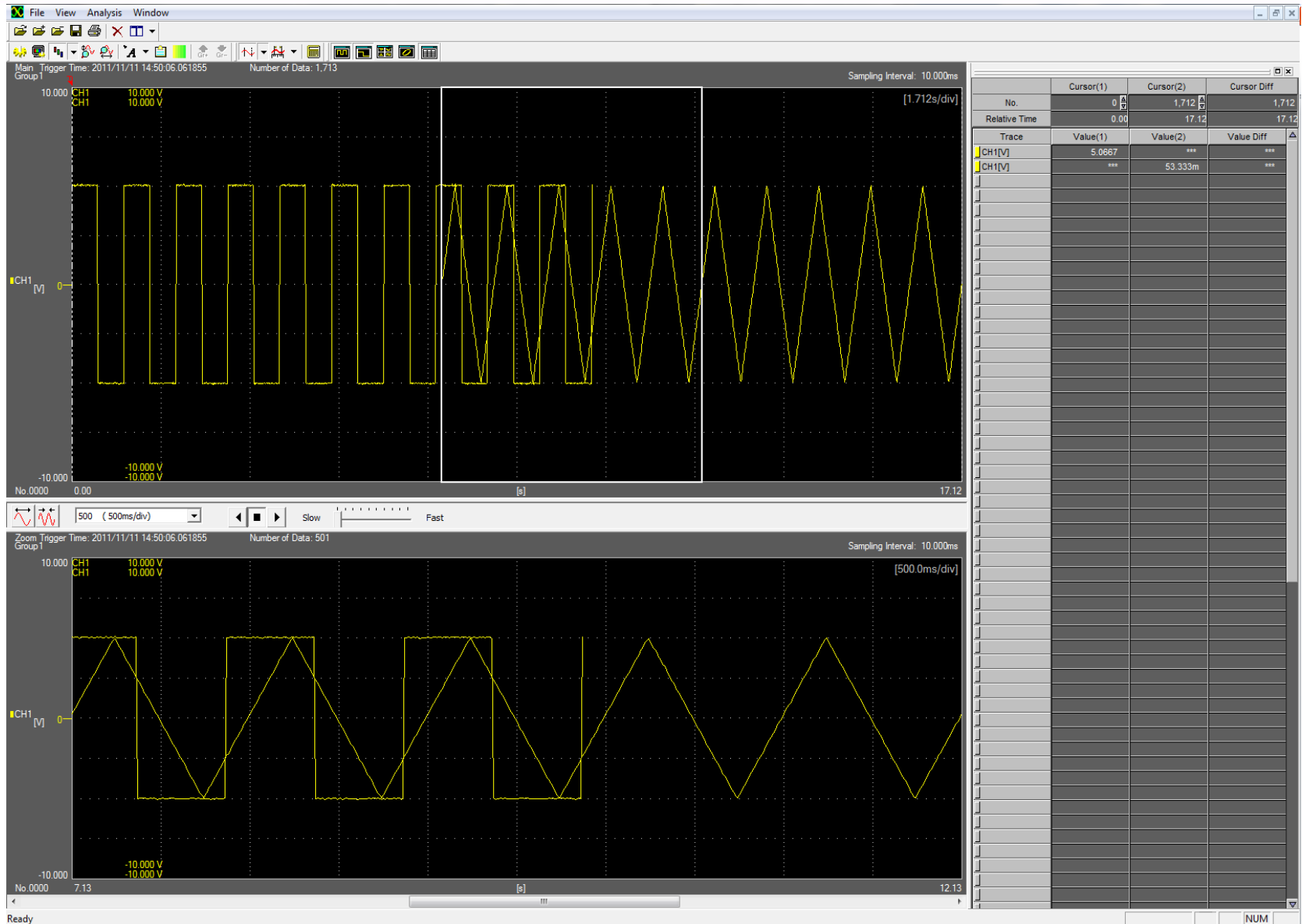


# Channel Merge

Channel Merge separate files to overlap different sections of the signal









# Absolute Time Channel Merge



# File Division

- Divide a file into segments that have the same specified length of time or number of data points.
- Can only convert from WDF/WVF to CSV/FLD/WVF
- Clip a data file to save a specified segment of the file.
- Analyze waveforms in a short period of time.
- Applies to:
  - files saved through hard disk recording
  - files merged sequentially over time or divided through the program
- Number of file divisions cannot exceed 1,000 files
- Each file cannot exceed 10 Gpoints of data.

Name	Date modified	Type
 0004m[000]_000.WDF	4/2/2012 3:44 PM	Xviewer
 0004m[001]_000.WDF	4/2/2012 3:44 PM	Xviewer
 0004m[002]_000.WDF	4/2/2012 3:44 PM	Xviewer
 0004m[003]_000.WDF	4/2/2012 3:44 PM	Xviewer
 0004m[004]_000.WDF	4/2/2012 3:44 PM	Xviewer
 0004m_000.WDF	3/29/2012 3:55 PM	Xviewer

# File Division Setup

DL850FileUtility

File View Help

File Merge File Divide Format Conversion Finalize

Divide Mode: Equal Division Divide Unit: No. of Points

Start Position: First Data Point

Record Length: Points (No. of file divide --)

Input File: Browse Update

File Name	Model Name	File Type	Sample Rate	Measuring Time	Triggered Time	Measuring Start Time	Measuring End Time	Record Length	Finalize
0004m_000	DL850V	Real-Ti...	500000	00:01:40.10		2012/03/29 13:33:01.83	2012/03/29 13:34:41.93	50,050,003	Done

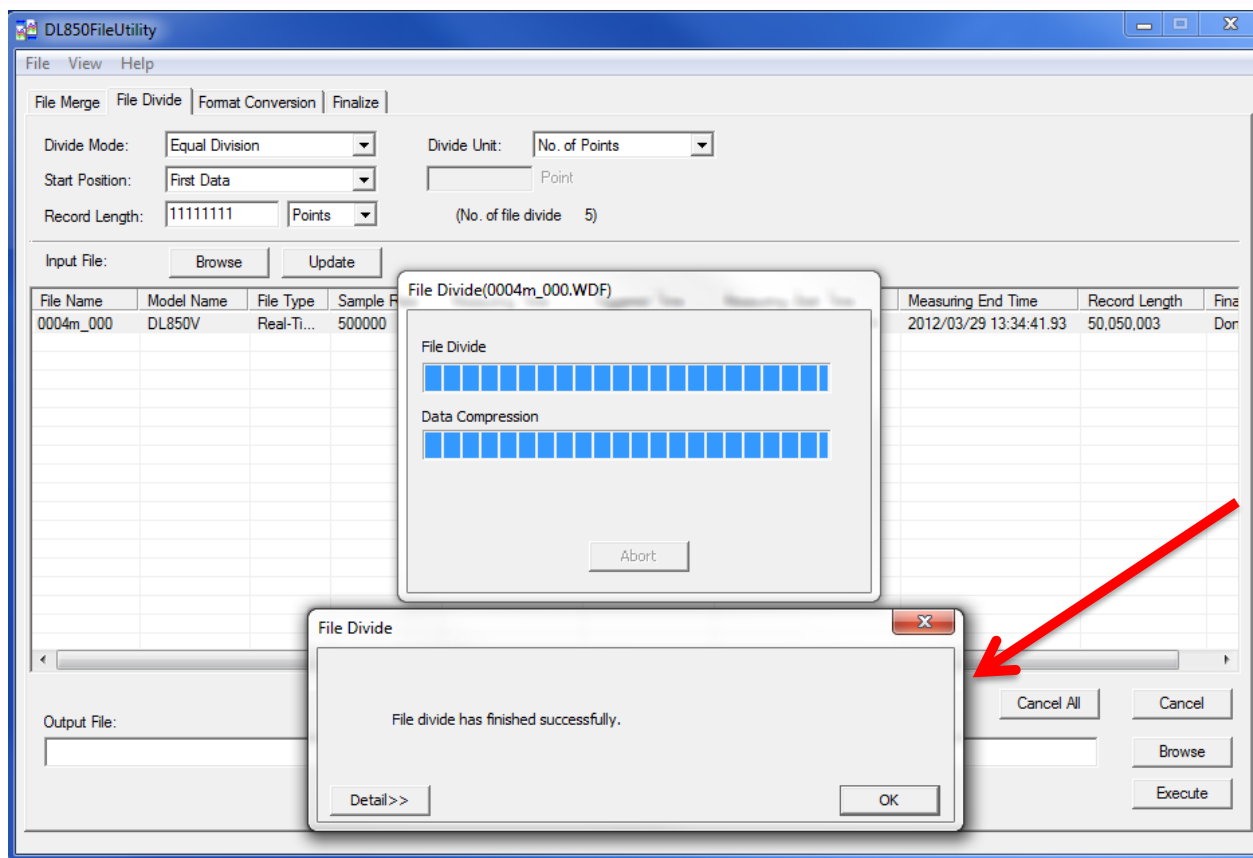
Output File:

Cancel All Cancel

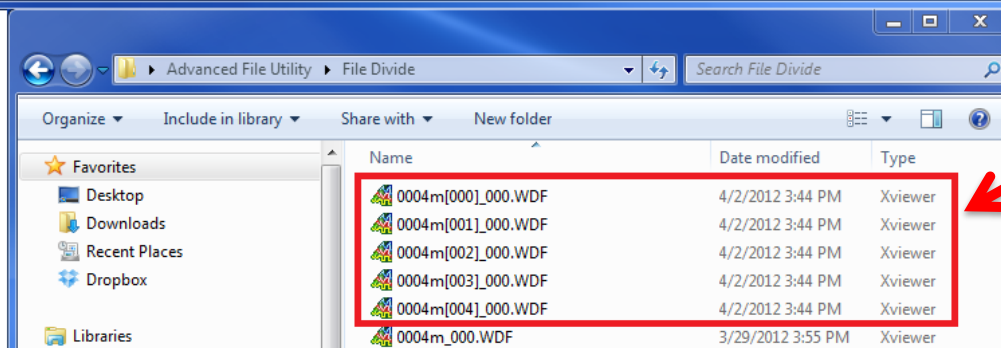
Browse

Execute

# File Division Completion

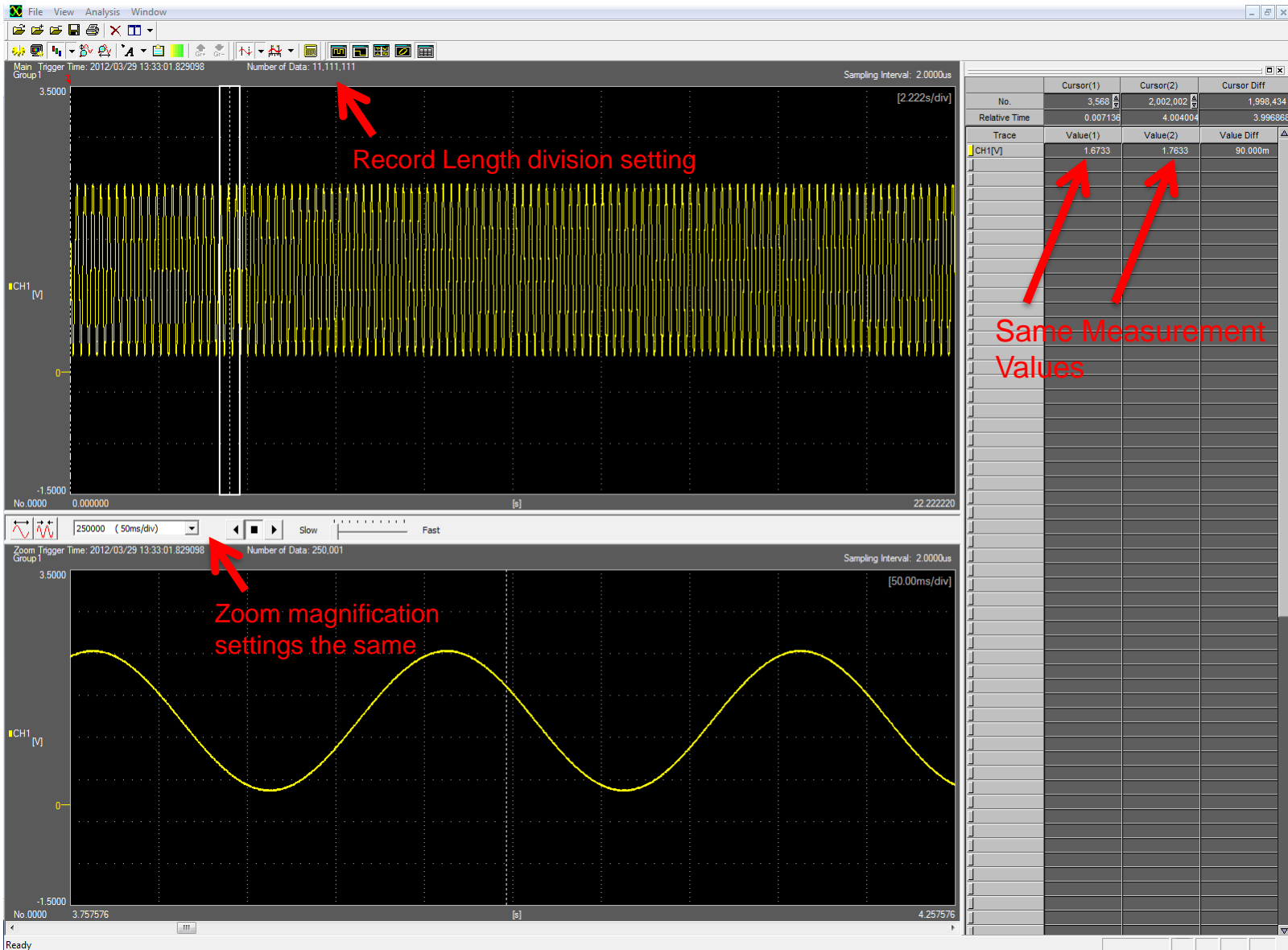


Confirm successful file division and note the save destination



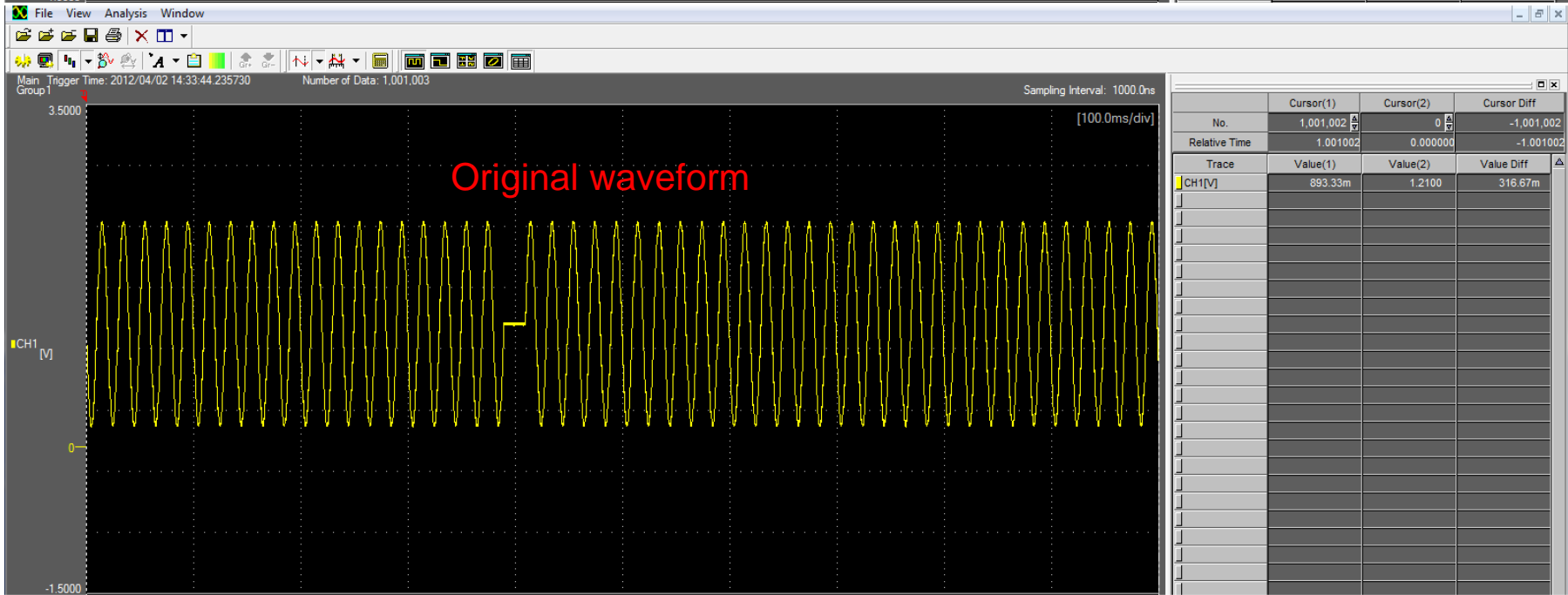
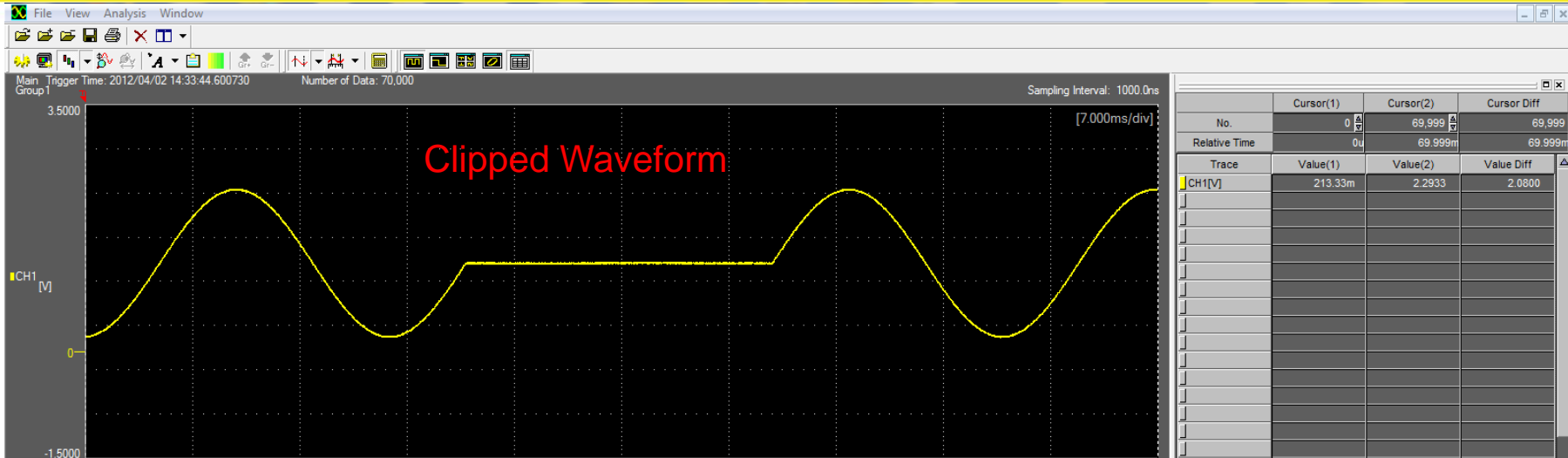
New divided files

# Equal Division



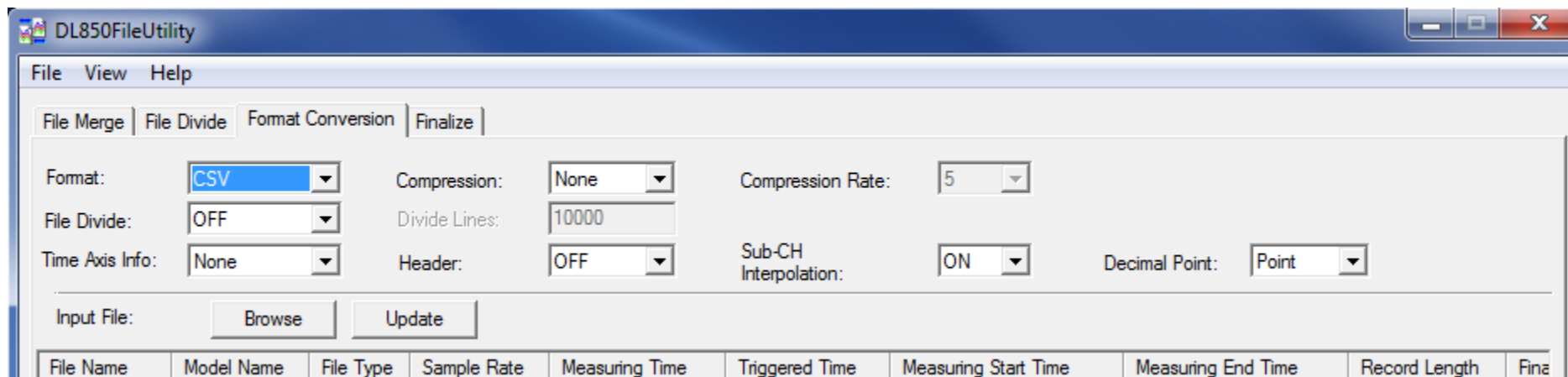
Same Measurement Values

# Clipping



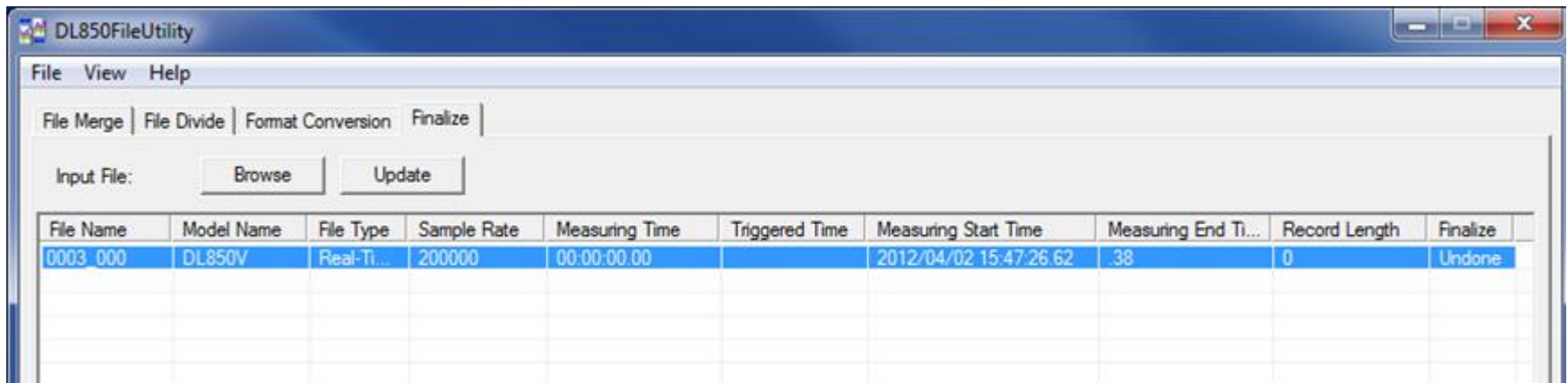
# Format Conversion

- Convert a waveform data file saved by a DL850/DL850V to a .CSV, .FLD, or .WVF file
- Convert up to 1,000 files at a time
- File must not exceed 100,000,000 lines and 2GB in file size
- When measurements is performed with the 16-CH Voltage Input or CAN Bus Monitor Module, only a single sub channel data is saved at a time.
- Merged files cannot be converted
- For .CSV files, you can:
  - include the measurements conditions as part of the header file
  - Select absolute or relative timestamp data



# File Finalize

- Finalize may be used to load files that couldn't be opened in Xviewer
- Files with the following conditions may be finalized:
  - missing divided files
  - incomplete files due to lost connection
  - incomplete files due to DL850/DL850V losing power during HD recording
- Process up to 128 files collectively under the same conditions
- Record length, Time/div, and Sampling Rate will be automatically adjusted
- Depending on file size, finalize may take several minutes to complete



# File Finalize Setup

The screenshot shows the DL850FileUtility application window. The interface includes a menu bar (File, View, Help), a tabbed control with 'Finalize' selected, and an 'Input File' section with 'Browse' and 'Update' buttons. A data table is displayed with one row highlighted. At the bottom, there is an 'Overwrite' checkbox and 'Execute' and 'Cancel' buttons.

1. Click on Finalize Tab

2. Browse for File and Update

File Name	Model Name	File Type	Sample Rate	Measuring Time	Triggered Time	Measuring Start Time	Measuring End Ti...	Record Length	Finalize
0003_000	DL850V	Real-Ti...	200000	00:00:00.00		2012/04/02 15:47:26.62	.38	0	Undone

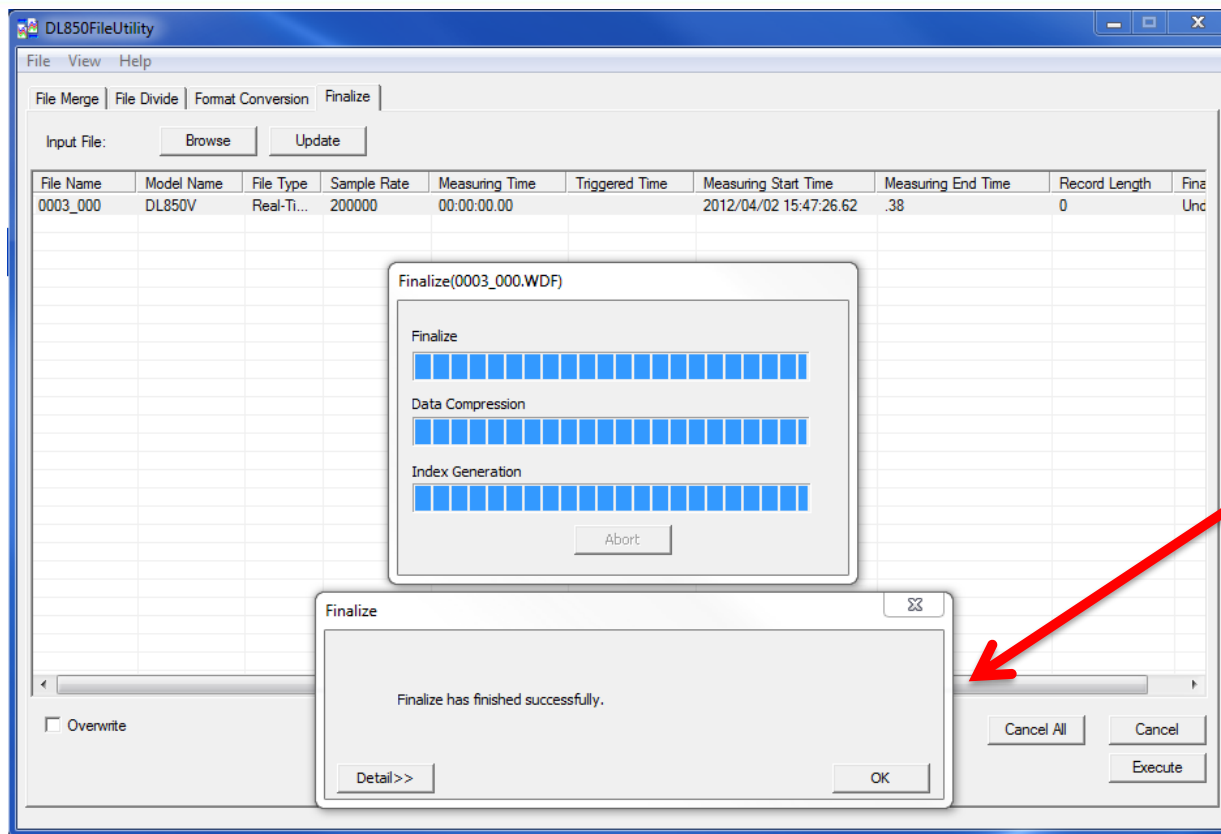
3. Highlight File to be Finalized

4. Verify status of the file

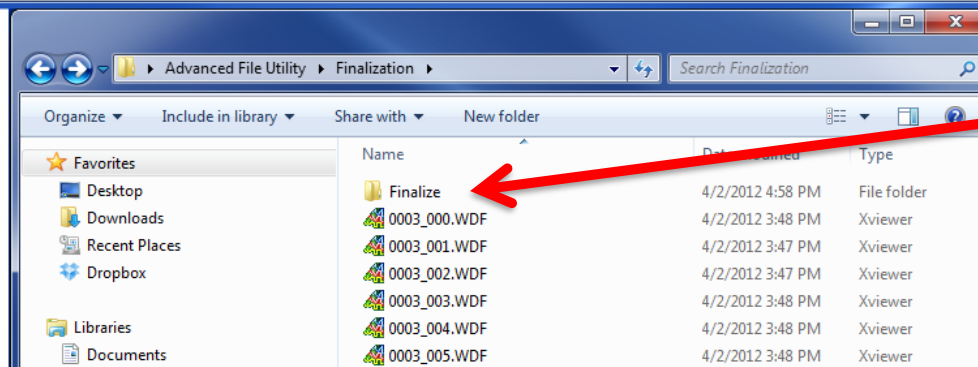
5. Select Overwrite Option\*

6. Execute Finalization

# File Finalize Completion

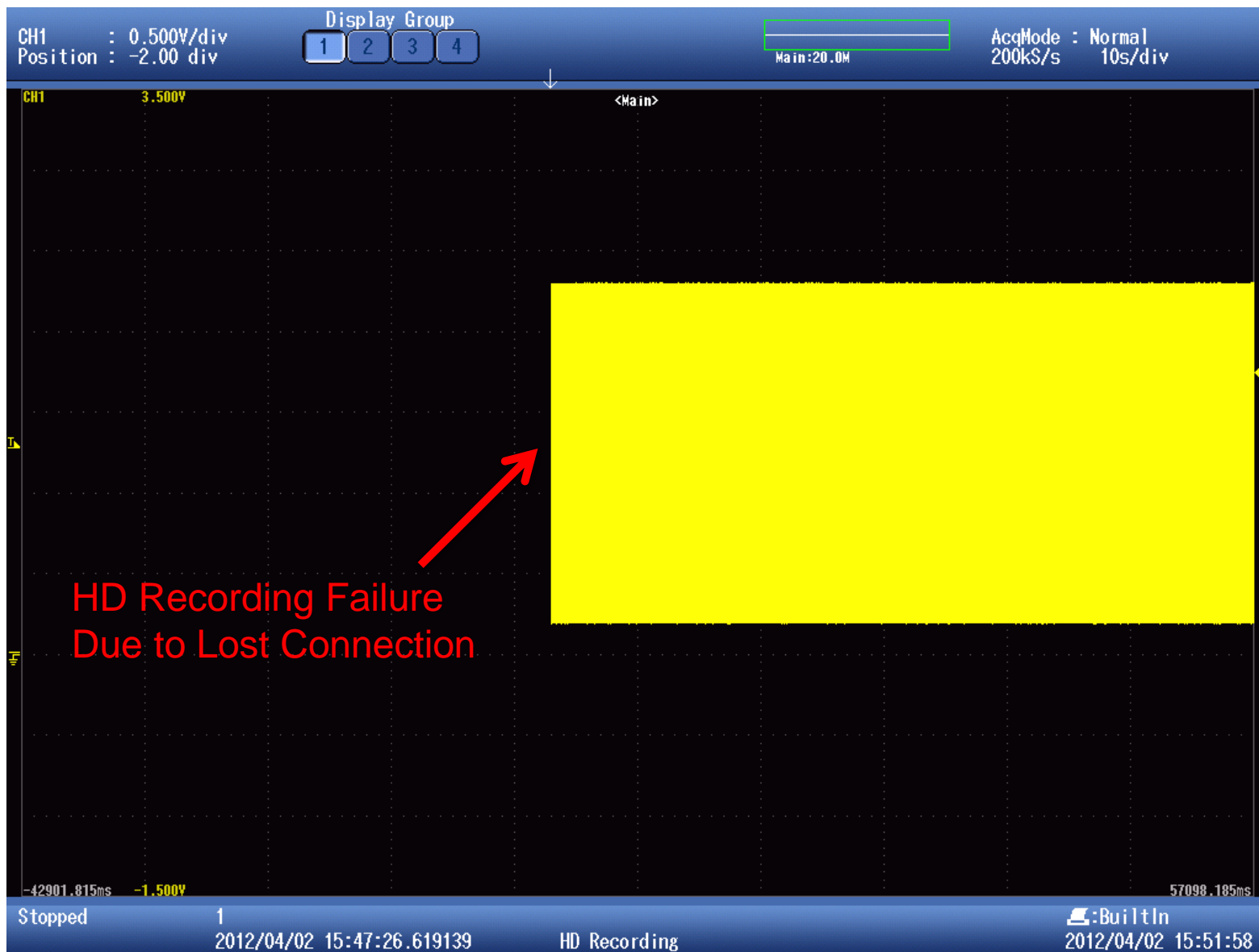


Confirm successful file finalize

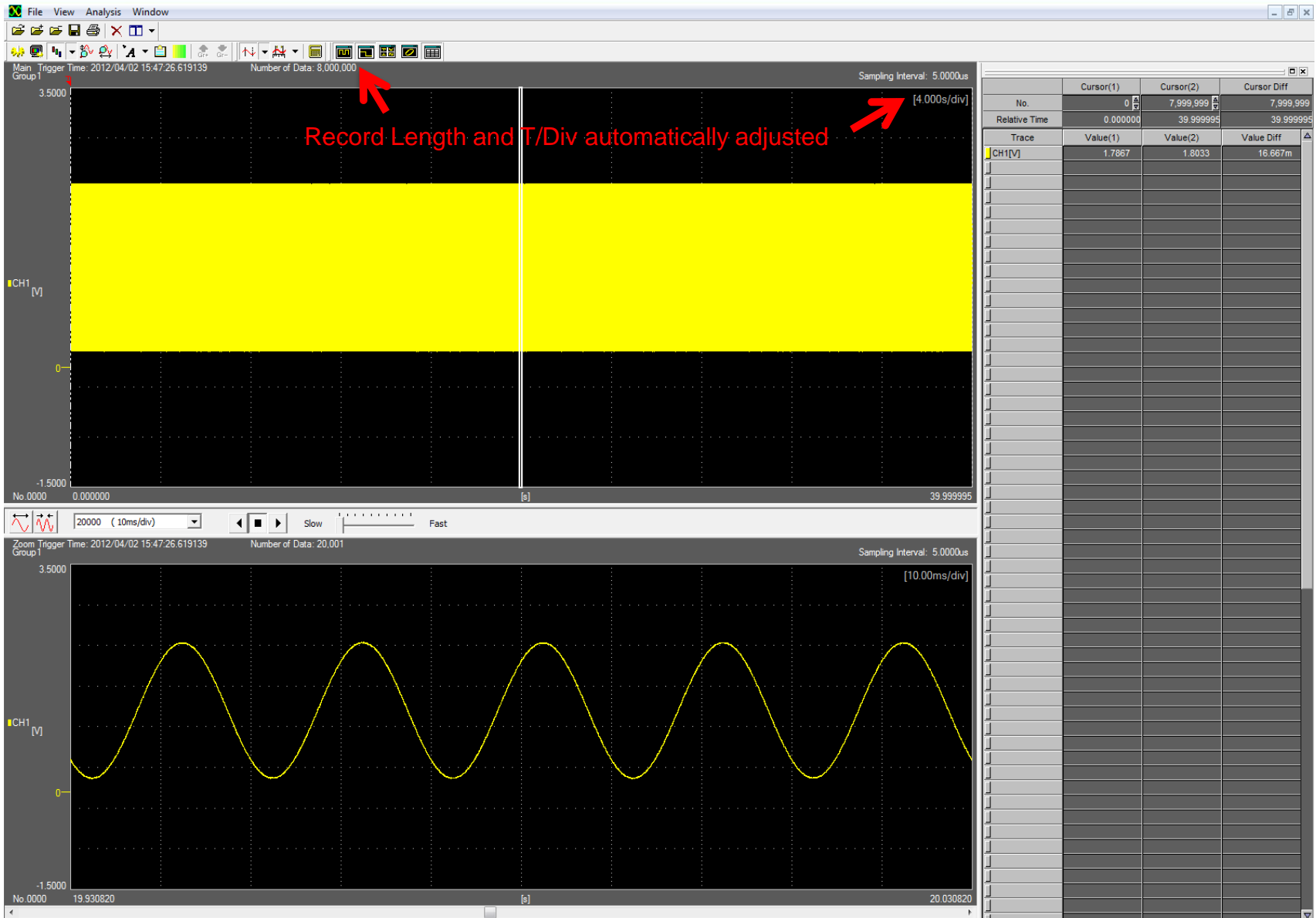


Finalized files in automatically created folder

# DL850 Incomplete File



# Xviewer Finalized File

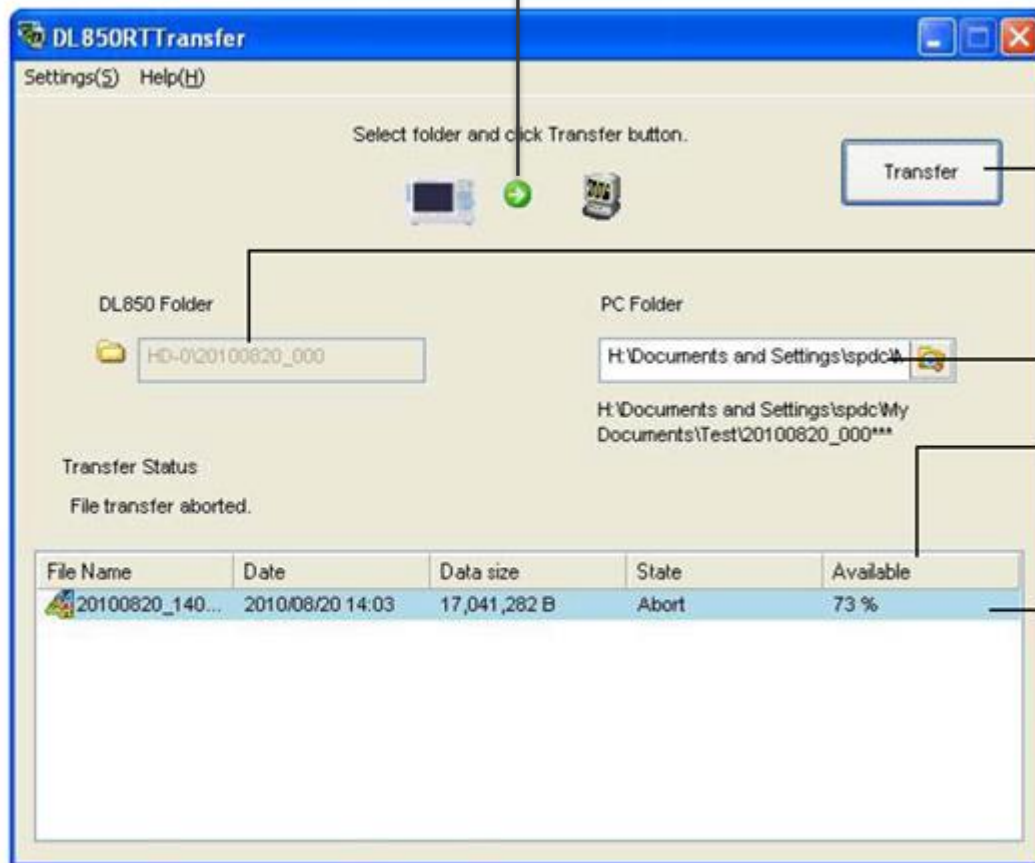


# Real Time File Transfer

- HD Recording and File Divide on the DL850 must be turned ON
- Transfer files to the PC in real time
- Perform measurements AND transfer files at the same time
- Can transfer and analyze files that have been “finalized” on the DL850
- Data Transfer applies to file’s with record lengths of 5 MB or more
- If transfer is aborted before completion, been completely transferred are discarded.
- If you restart the transfer, the files that were not previously transferred to the PC are transferred in order.
- View transferred files in Xviewer while HD record is streaming

# Real Time Transfer

Displayed in green when the connection is successful



Transfer button

Folder on the DL850/DL850V

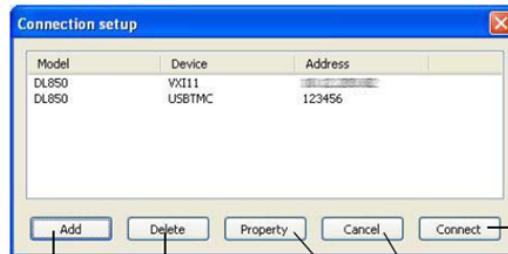
Transfer destination folder

Percentage of the file that can be viewed in Xviewer in relation to the total file size

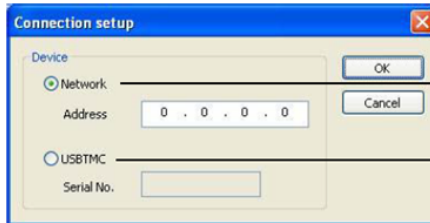
List of files that have been transferred and are being transferred  
Double-click a file to view and analyze it in Xviewer.

\*First turn on HD Recording and File Divide before you start File Transfer

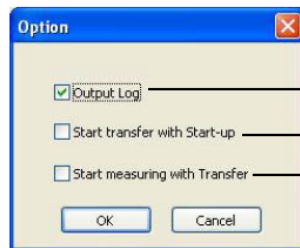
# Real Time Transfer Setup



- Connects to the selected DL850/DL850V** (points to the 'Connect' button)
- Displays the connection information of the selected DL850/DL850V** (points to the table)
- Undoes the addition or deletion of a connection** (points to the 'Cancel' button)
- Deletes the selected connection from the list** (points to the 'Delete' button)
- Adds a DL850/DL850V connection to the list** (points to the 'Add' button)



- If you want to connect over a network (specify the IP address of the DL850/DL850V)** (points to the 'Network' radio button)
- If you want to connect over USBTMC (specify the serial number of the DL850/DL850V)** (points to the 'USBTMC' radio button)



- The software outputs a data transfer log.** (points to the 'Output Log' checkbox)
- When you start the real-time data transfer software, it uses the previous settings to start transferring data.** (points to the 'Start transfer with Start-up' checkbox)
- When you click Transfer, the connected DL850/DL850V starts measuring.** (points to the 'Start measuring with Transfer' checkbox)