

**Light Weight Vibrometer
Seismic Ground Vibration & Sound Analyzer
Blast Induced Ground Vibration & Sound Analyzer
EVS(Environmental Vibration & Sound) Measurement**

PC Software User Manual

Third Edition (Ver. 3.0.0.d)



SVIB Software Technologies Pvt. Ltd

Table of Contents

- Third Edition (Ver. 3.0.0.d)..... 1
- [BLS PC Software] 3
- 1. Copying Files to system & Installation Steps:..... 3
 - 1.1. System Requirement:..... 3
 - 1.2: Steps for installation of BLS300 PC Software:..... 3
- 2. Application Launching:..... 5
 - 2.1. Tree structure..... 5
 - 2.2. List View: 5
- 3. Event Report:..... 6
- 4. Standards:..... 7
 - 4.1. DIN-4150:..... 7
 - 4.2. DGMS-NON Owner: 7
 - 4.3. DGMS-Owner: 7
- 5. Report Options:..... 8
- 6. Post Event Notes: 9
- 7. Print:..... 10
- 8. Print List:..... 10
- 9. Export:..... 11
- 10. EVS:..... 12
- 11. Export EVS: 13
- 12. About:..... 13

[BLS PC Software]

1. Copying Files to system & Installation Steps:

Before installing the BLS Package user need to copy the result files in to the system in a particular folder.

1.1. System Requirement:

Operating System: Windows

RAM : 8GB

System Type : 64Bit

(For 32 bit different version of PC Software is need to install)

1.2: Steps for installation of BLS300 PC Software:

- Double click on .exe file click Next.
- Paste the serial key (which is given in a text file along with the .exe package) & click Next.
- For First Time installation of BLS Package it will ask for the crystal report installation
- User need to install the crystal report along with the main installation of BLS
- After installation of crystal report continue with the main installation of BLS PC Software.

Advanced Installer

BLS_300d Setup Wizard

Please enter your customer information

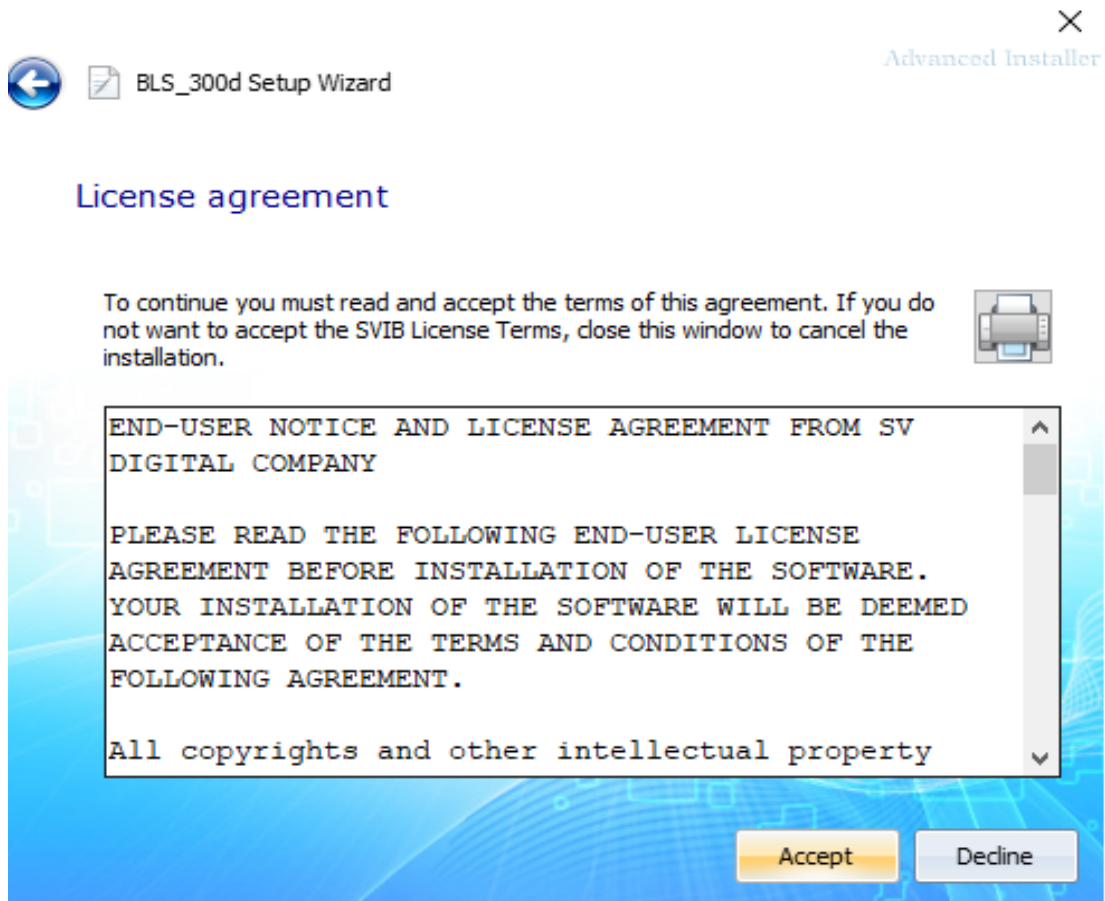
User Name:

Organization:

Serial Number:


Next > Cancel

- Then click on Accept button to accept the terms & Conditions



- Select Typical & click Next
- Then click on Install& then Finish.

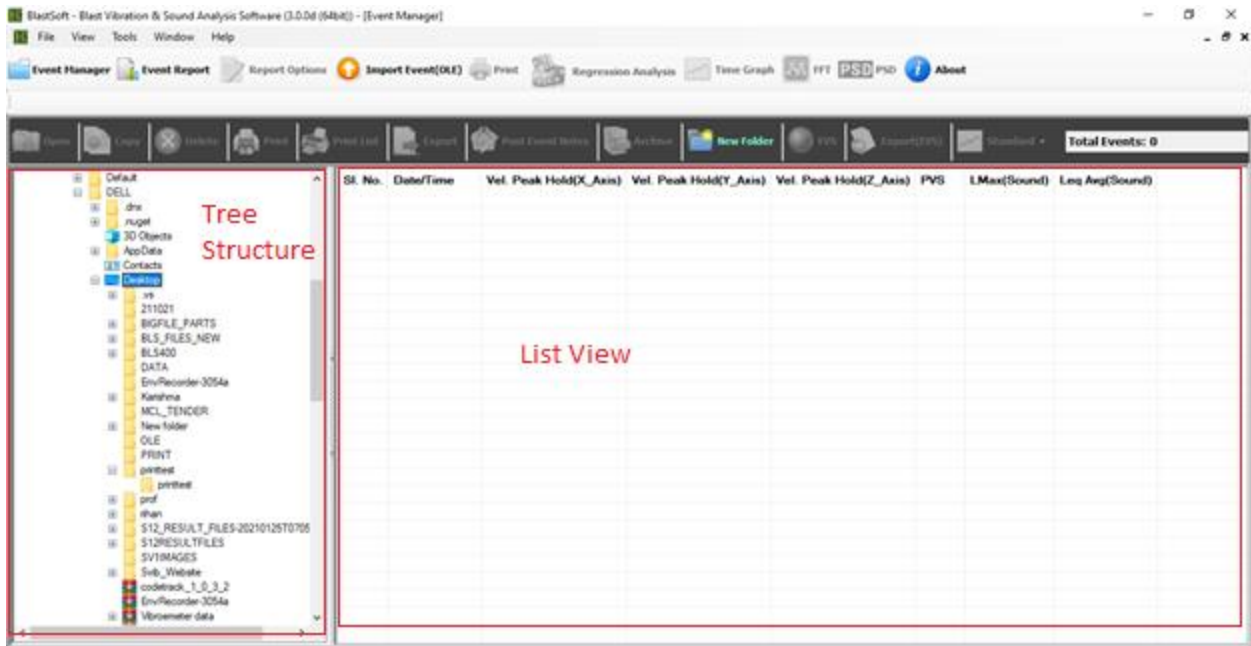
2. Application Launching:

Install the BLS Package as discussed in 1.2 and Click on icon  on Desktop to launch the application

Event Manager Window will appear .Left hand side one tree structure & right hand side list view

2.1. Tree structure

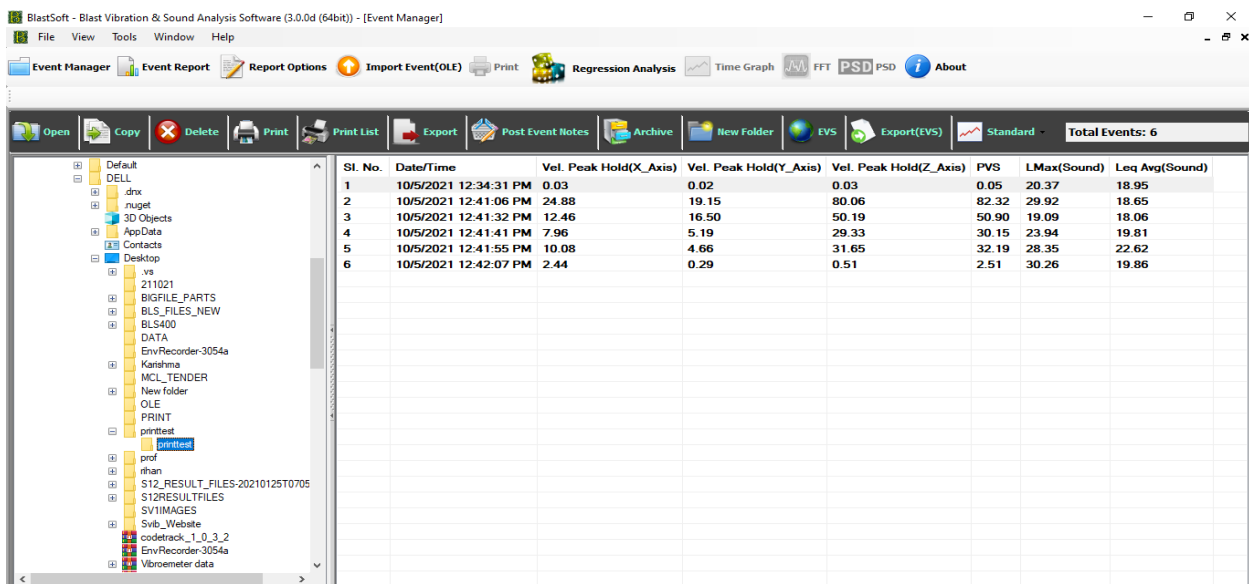
Tree structure is used to select the folder from where Blast files are stored as explain in 1.



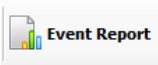
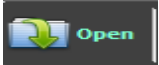
2.2. List View:

List View is used to show Velocity peak hold of x, y, z, PVS , LMax(Sound) & Leq Avg(Sound)

When user select the folder where Blast files are stored, list view shows its values in right side.

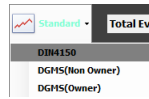


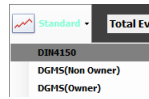
3. Event Report:

When user double click of list view file or click on  or click on  event report window will open which shows Event Report details of X, Y, Z axis values & charts showing the sound and vibration analysis of the selected

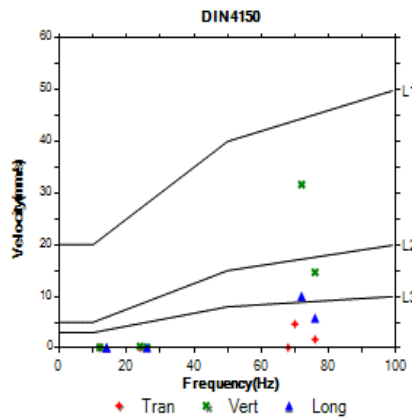


4. Standards:



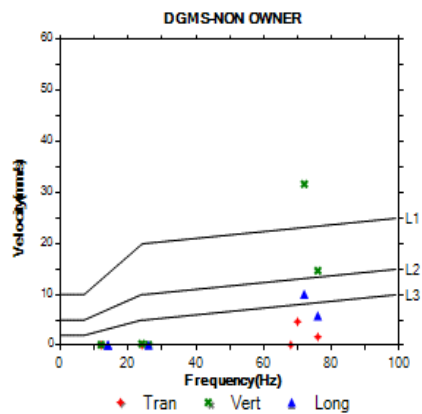
When user click on  button, on the right side of event report as shown in 10 Freq-vel graph plot is shown with the corresponding standards .In dropdown 3 standards (DIN4150, DGMS-Non Owner, and DGMS-Owner)

4.1. DIN-4150:



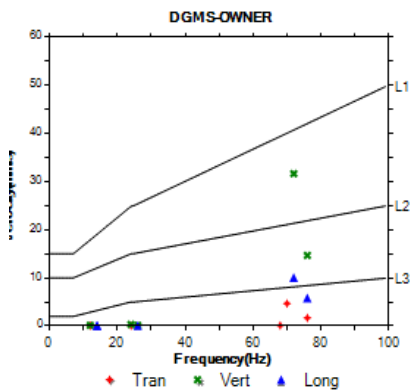
Permissible PPV(mm/s) as per DIN				
Type of structure		Dominant excitation Freq(Hz)		
		<10Hz	10-45Hz	>45Hz
L1	Industrial buildings	20	40	50
L2	Domestic houses/Structure	5	15	20
L3	objects of historical importance & Sensitive structures	3	8	10

4.2. DGMS-NON Owner:



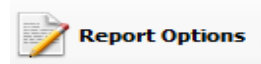
Permissible PPV(mm/s) as per DGMS-Non Owner				
Type of structure		Dominant excitation Freq(Hz)		
		<8Hz	8-25Hz	>25Hz
L1	Industrial buildings	10	20	25
L2	Domestic houses/Structure	5	10	15
L3	objects of historical importance & Sensitive structures	2	5	10

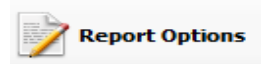
4.3. DGMS-Owner:



Permissible PPV(mm/s) as per DGMS-Owner				
Type of structure		Dominant excitation Freq(Hz)		
		<8Hz	8-25Hz	>25Hz
L2	Domestic houses	10	15	25
L1	Industrial buildings	15	25	50
L3	objects of historical importance & Sensitive structures	2	5	10

5. Report Options:



When user selects a file from list View & clicks on  button following window will appear.

The screenshot shows the BlastSoft software interface. On the left is a file tree view. In the center is a table with columns: St. No., Date/Time, Vel Peak Hold(X Axis), Vel Peak Hold(Y Axis), Vel Peak Hold(Z Axis), PVS, LMax(Sound), and Leq Avg(Sound). A dialog box titled 'Event Report Options' is open, containing the following fields:

- Event Report Title: Event Report 1
- Company Name: svib
- Address: bang
- Telephone Number: 9876543210
- Mobile Number: 9876543210
- Fax Number: 24343
- Email Address: i@gmail.com

Buttons for 'Apply' and 'Cancel' are at the bottom of the dialog.

User need to enter all the fields. Then click on Apply button. That user options will get reflected into event report.

The screenshot shows the 'Event Report 1' window in BlastSoft. It contains the following information:

Event Report 1
svib, bang
TEL: 9876543210 FAX: 24343 Mobile: 9876543210 E-mail: i@gmail.com

Start Time: 2021-10-05 PM 12:41:55 SV-1 Serial Number: SR4EW4D18005
End Time: 2021-10-05 PM 12:41:56 Duration Time: 1sec

Notes:
Project: Name Client Name:
Location: Location Measuring Point:
GPS: 1.2; 2.302

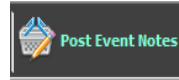
Post Event Notes:

	X-axis(L)	Y-axis(T)	Z-axis(V)
Trigger Time (sec)	0.01	0.01	0.01
Peak Particle Velocity (mm/s)	10.08	4.66	31.65
ZC Frequency (Hz)	72	70	72
Peak Acceleration (g)	0.4652	0.2089	1.4604
Peak Displacement (mm)	0.022284	0.010588	0.069961

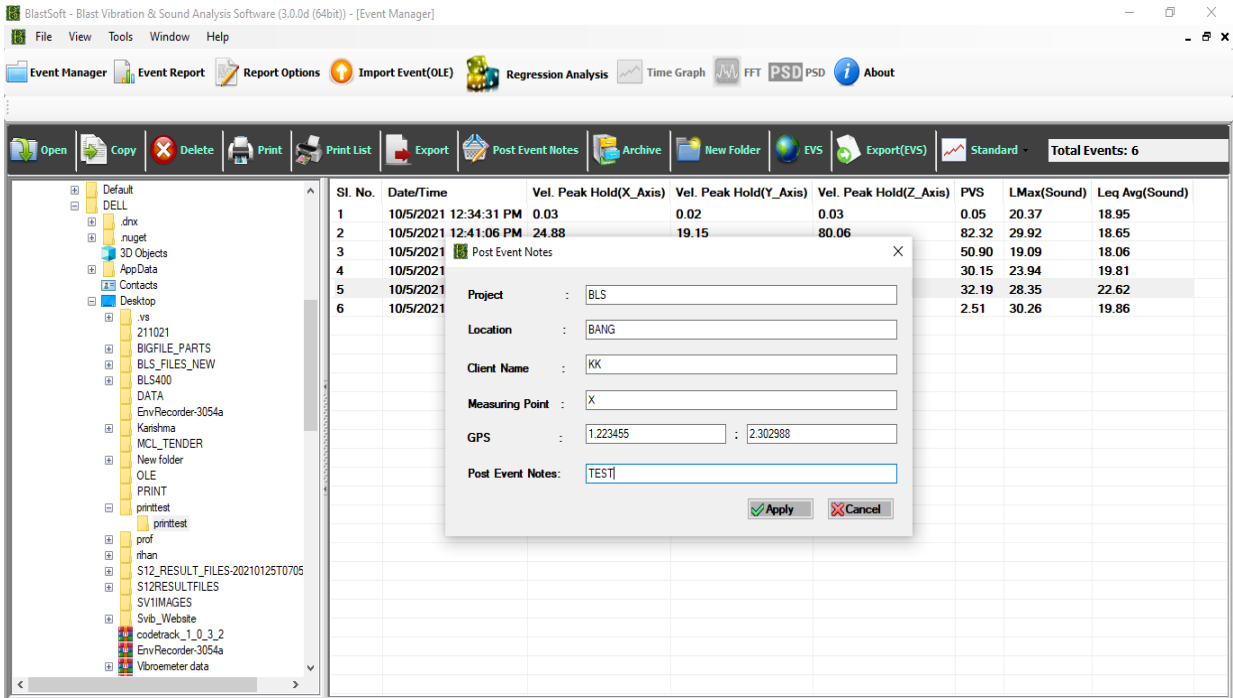
Peak Vector Sum: 32.19 mm/s at 0.009 sec
Max Sound: 28.35 dB (A)

On the right, there is a graph titled 'DGMS-OWNER' showing Velocity (mm/s) vs Frequency (Hz) with three curves labeled L1, L2, and L3. Data points are plotted for Tran (red diamonds), Vert (green asterisks), and Long (blue triangles).

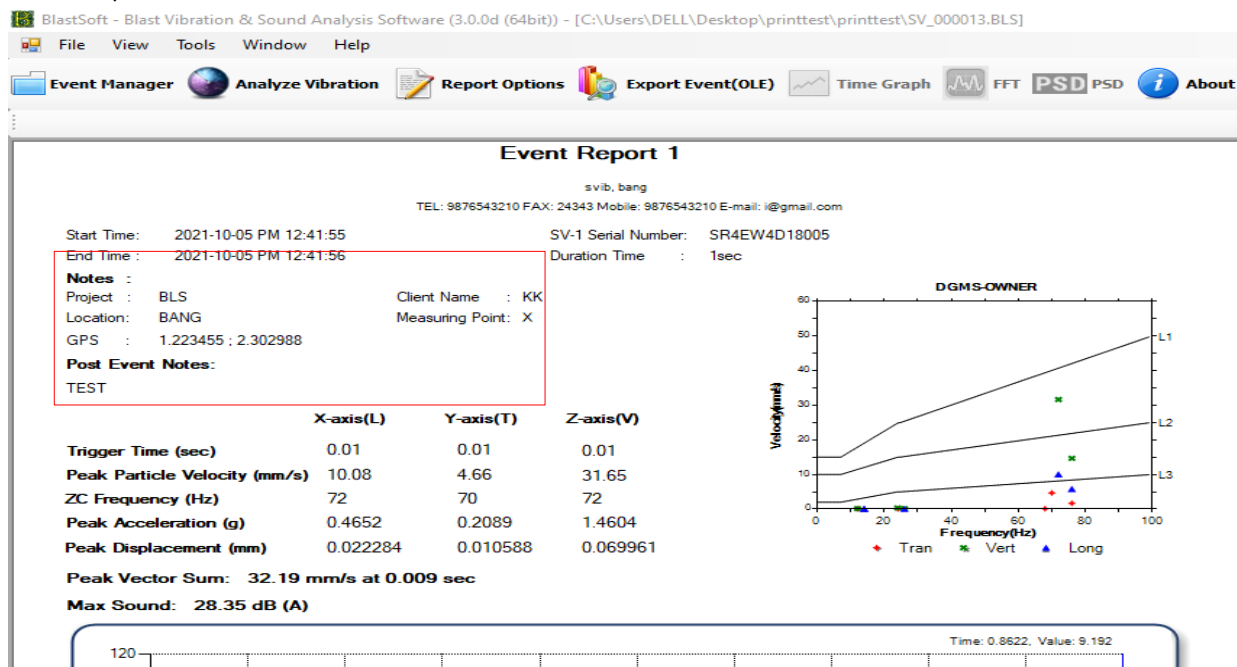
6. Post Event Notes:



When user selects a file from event list & clicks on  button following window will appear.





User need to enter all the fields. Then click on Apply button. That user options will get reflected into event report



7. Print:



When user clicks on  or  (Inside the event report form) following window will appear. User can take print of the event report or it can save as pdf file also.

Event Report 1

svib_bang
TEL: 9876543210 FAX: 24543 Mobile: 9876543210 Email: @gmail.com

Start Time: 2021-10-05 PM 12:41:55 SV-1 Serial Number: SR4EW4D18005
End Time: 2021-10-05 PM 12:41:56 Duration Time: 1sec

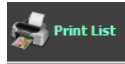
Project: BLS Client Name: KK
Location: BANG Measuring Point: X
GPS : 1.223455 ; 2.302988

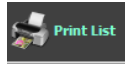
Post Event Notes: TEST

	X-axis (L)	Y-axis (T)	Z-axis (V)
Trigger Time (sec)	0.01	0.01	0.01
Peak Particle Velocity (mm/s)	10.08	4.66	31.65
ZC Frequency (Hz)	72	70	72
Peak Acceleration (g)	0.4652	0.2089	1.4604
Peak Displacement (mm)	0.022284	0.010588	0.069961
Peak Vector Sum:	32.19 mm/s at 0.009 sec		
Max Sound:	28.35 dB (A)		

Current Page No.: 1 Total Page No.: 1 Zoom Factor: 100%

8. Print List:



When user clicks on  button following window will appear. There user can take print of the list view or it can export to .csv file.

Print List

Formatting: Style: Minimal Standard Custom

Settings: Header: Event Report List

Use grid lines Shrink to fit Footer

Print only selection List header on every page Watermark:

Page Setup...
Print Preview...
Print...
Export

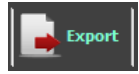
Magnification: Auto 200% 100% 50%

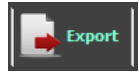
Pages: 2

OK Cancel

Date/Time	Peak Particle Vel (X_Axis) (mm/sec)	Peak Particle Vel (Y_Axis) (mm/sec)	Peak Particle Vel (Z_Axis) (mm/sec)	pvg (mm/sec)	LMax (Sound) (dBA)	Leq Avg (Sound) (dBA)
10/5/2021 12:34:31 PM	0.03	0.02	0.03	0.05	20.37	18.95
10/5/2021 12:41:06 PM	24.88	19.15	80.06	82.32	29.92	18.65
10/5/2021 12:41:32 PM	12.46	16.50	50.19	50.90	19.09	18.06
10/5/2021 12:41:41 PM	7.96	5.19	29.33	30.15	23.94	19.81
10/5/2021 12:41:55 PM	10.08	4.66	31.65	32.19	28.35	22.62
10/5/2021 12:42:07 PM	2.44	0.29	0.51	2.51	30.26	19.86

9. Export:



When user clicks on  browser window will appear. User need to browse the location where that exported file need to save & click on OK. That file data will save to text file as below.

```
SV_000013_ASCII - Notepad
File Edit Format View Help
Blast Vibration & Sound Analysis

Exported Time: 10/22/2021 12:09:22 PM
File Name : SV_000013
Blast PDA Version : 3.0.5.1
PDA Serial Number : SR4EW4D18005
Firmware Version : V3.1 401; 4ch; MaxFS:16384Hz;
Analyzing Library Version : 2.0.2
Start Time : 2021-10-05 PM 12:34:31
End Time : 2021-10-05 PM 12:34:32
Duration : 1 sec
Integration Time : 0.125 sec
Sample Rate : 1024 sps
dB Reference : Acc: 1E-05          Vel: 1E-09          Disp: 1E-12

Notes
Project : BLS
Location : BANG
Client : KK
Measuring Point : X
GPS : 1.223455 ; 2.302988
Post Event Notes
TEST

Transducer Options
Sensitivity(mV/g): Ch1: 800 Ch2: 800 Ch3: 800
Amp Gain : Ch1: 2 Ch2: 2 Ch3: 2
Comp Gain : Ch1: 1 Ch2: 1 Ch3: 1

Analyzing Options
Integral : Ch1: ACC Ch2: ACC Ch3: ACC
Weight : Ch1: HORIZONTAL Ch2: FLAT Ch3: VERT
Average : Ch1: 2 Ch2: 2 Ch3: 2

Result
Ln 1, Col 1 100% Windows (CRLF) UTF-8
```

10. EVS:



When user click on EVS button by selecting one file from list view, EVS Window will appear. User can take its print also.

Event Report 1

svib, bang
TEL: 9879543210 FAX: 24343 Mobile: 9879543210 E-mail: i@gmail.com

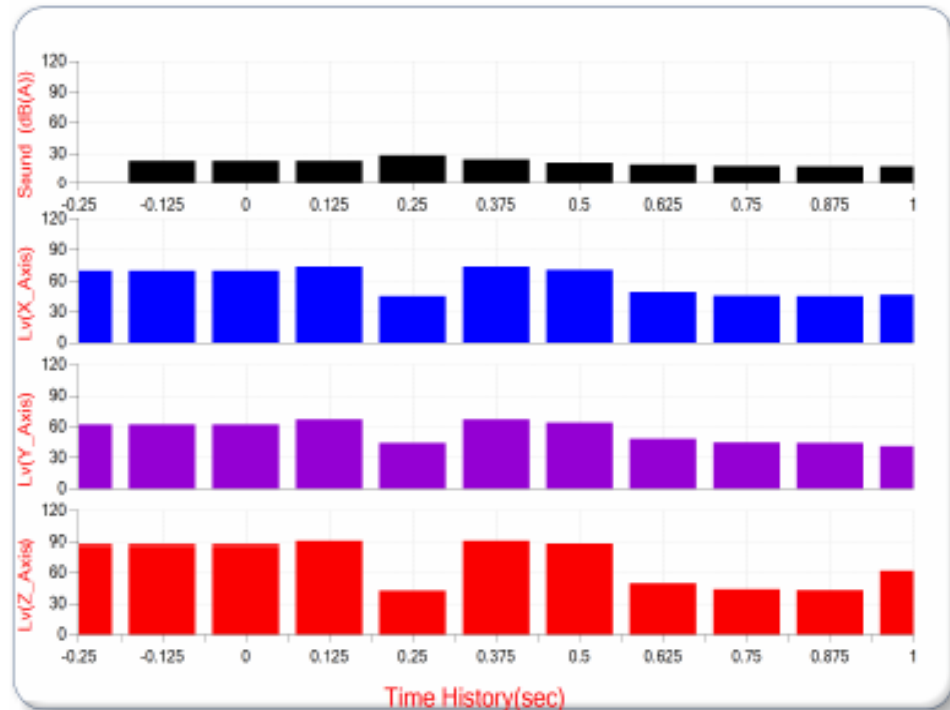
Start Time: 2021-10-05 PM 12:41:55	SV-1 Serial Number: SR4EW4D18005
End Time: 2021-10-05 PM 12:41:56	Duration Time: 1sec
Project: BLS	Client Name: KK
Location: BANG	Measuring Point: X
GPS : 1.223455 ; 2.302968	

Post Event Notes:


Sound (dB(A))	Leq	LMax	LMin	L1	L5	L10	L50	L90	L95	L99
	22.62	28.35	17.78	28.35	28.35	28.35	19.03	17.78	17.78	17.78

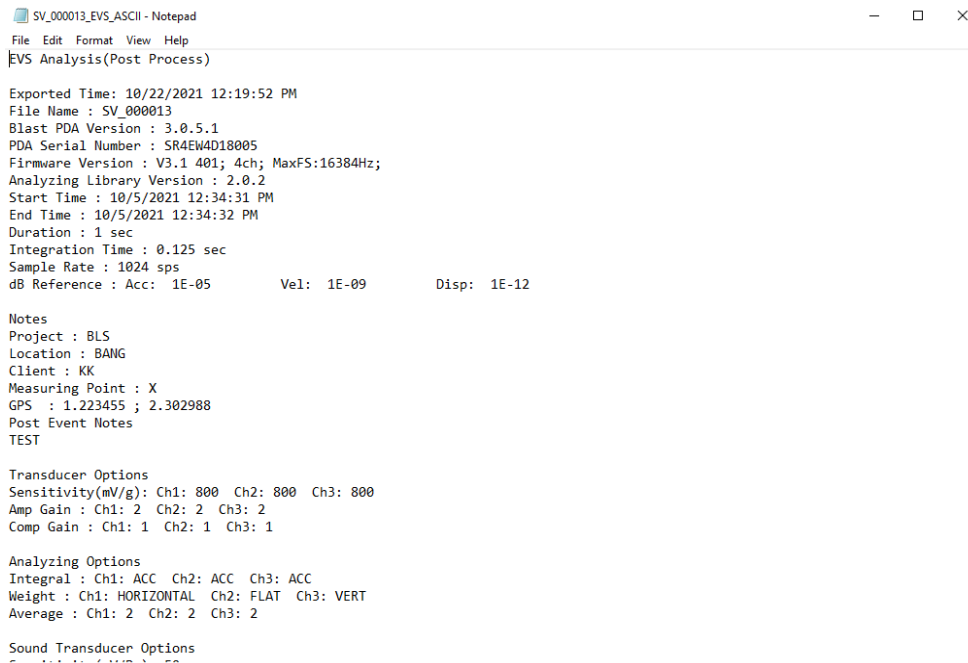
Vibration Vert Axle (dB)	Leq	LMax	LMin	L5	L10	L50	L90	L95	L99
	80.48	90.91	42.50	90.25	87.27	51.42	43.67	42.71	42.50

Time History:



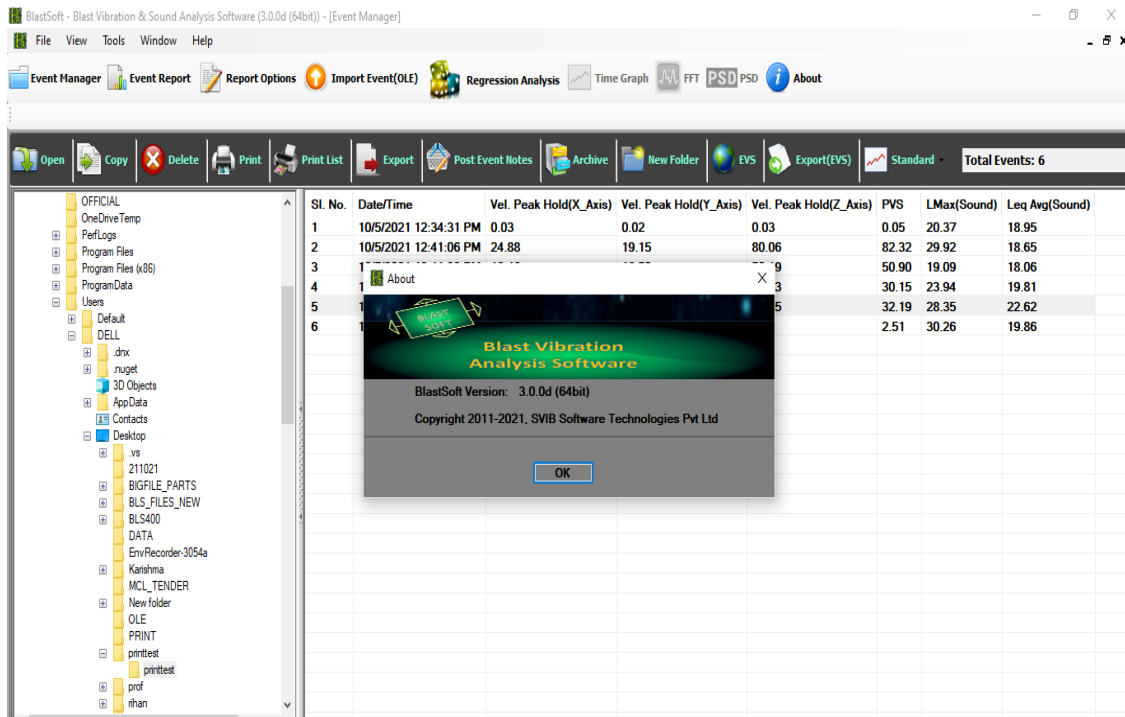
11. Export EVS:

Click on  icon to export the EVS to text file of the selected file.



12. About:

Click on About Icon to view the version of project.



*****END*****