



Nor133/136 – 3/6-channel Vibration Meter

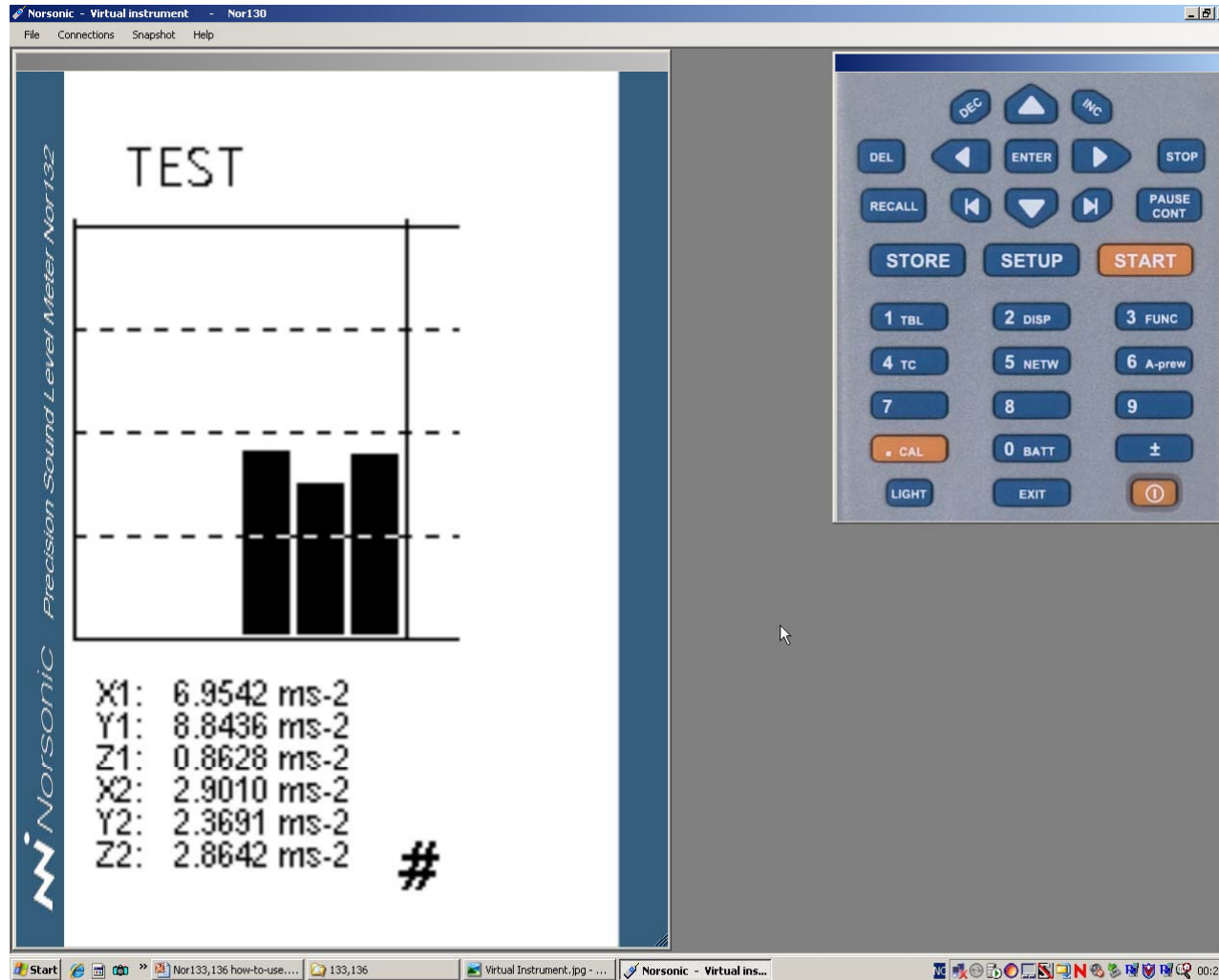
Features & applications

- Whole Body vibrations acc. to ISO 2631
- Hand-Arm vibrations acc. to ISO 5349
- Building vibrations
- Ship cabin vibrations
- General machine vibrations
- Graphical & numerical display of all channels simultaneously
- Huge memory capacity with SD memory card
- Records the vibration signals to .WAV files
- Powerful post-processing SW NorVibraTest
- Complete range of accelerometers for HA- and WB measurements

⇒ The perfect field-instrument for vibration measurements!



Virtual Instrument





Default display

- After powering on, the last used setup will appear

```
Messjob
-----
2545kb2a
WB ISO 2631_1
60 s      CD: 5 s
X1: C1 C_Sens01
Y1: C1 C_Sens01
Z1: C1 C_Sens01
X2: U1 U_Sens01
Y2: U1 U_Sens01
Z2: U1 U_Sens01
. .
```



Loading setups





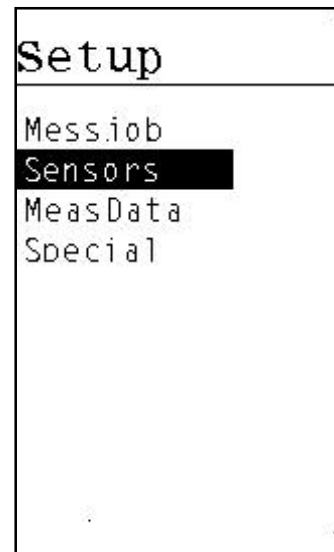
Setup name edit possibility

Store as

norsonic



Setup possibilities





Setup, setting duration

- Possible to set the measurement duration to 1 hour (3600 seconds)

```
Messjob
-----
default
WB ISO 2631_4
60 CD: 5 s
X1: U1 U_Sens01
Y1: U1 U_Sens02
Z1: U1 U_Sens03
X2: U1 U_Sens04
Y2: U1 U_Sens05
Z2: U1 U_Sens06
. .
```



Setup, standards & filters

```
Messjob
-----
default
WB ISO 2631_4
60 s      CD: 5 s
X1: U1 U_Sens01
Y1: U1 U_Sens02
Z1: U1 U_Sens03
X2: U1 U_Sens04
Y2: U1 U_Sens05
Z2: U1 U_Sens06
```

```
Messjob
-----
default
HA DIN 45671
60 s      CD: 5 s
X1: U1 U_Sens01
Y1: U1 U_Sens02
Z1: U1 U_Sens03
X2:
Y2:
Z2:
```



Setup, selecting countdown

- Possibility to adjust the pause from pushing START to when the measurement starts. Allows time for escaping the measurement room after setting up the equipment

```
Messjob
-----
default
WB ISO 2631_4
60 s    CD: 5 s
X1: U1 U_Sens01
Y1: U1 U_Sens02
Z1: U1 U_Sens03
X2: U1 U_Sens04
Y2: U1 U_Sens05
Z2: U1 U_Sens06
. . .
```



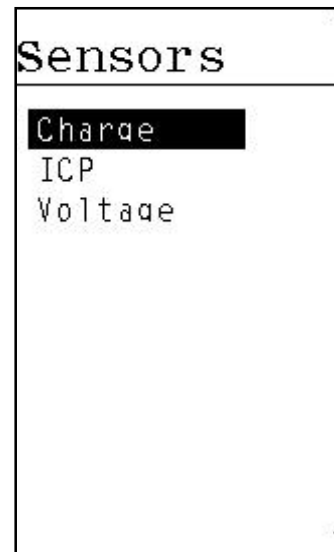
Setup, selecting sensors

- Hi/Low setting for voltage sensors

```
Messjob
-----
default
WB ISO 2631_4
60 s CD: 5 s
X1: U2 J_Sens01
Y1: U1 U_Sens02
Z1: U1 U_Sens03
X2: U1 U_Sens04
Y2: U1 U_Sens05
Z2: U1 U_Sens06
. .
```



Choosing type of sensor





Sensors, charge

- Possibility to set sensitivity

Charge	
1: C_Sens01	<input type="text" value="2.0"/>
2: C_Sens02	1.0
3: C_Sens03	1.0
4: C_Sens04	1.0



Sensors, ICP

- possible to set gain & current

```
ICP
-----
1: I_Sens01 2mA
  3.0
2: I_Sens02 1mA
  2.0
3: I_Sens03 1mA
  2.0
4: I_Sens04 1mA
  2.0
```

```
ICP
-----
1: I_Sens01 2mA
  2.0
2: I_Sens02 1mA
  2.0
3: I_Sens03 1mA
  2.0
4: I_Sens04 1mA
  2.0
```



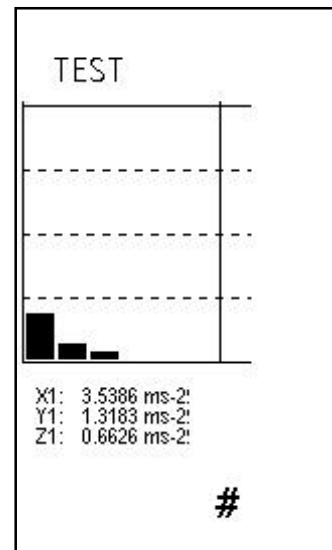
Sensors, voltage

- choice between AC and DC
- possible to set gain

Voltage	
1: U_Sens01	<input checked="" type="checkbox"/> DC
1.0	
2: U_Sens02	AC
3.0	
3: U_Sens03	AC
3.0	
4: U_Sens04	AC
3.0	
-	



- Test button for testing the setup before doing the real measurement (no storing of results)





Display during measurement

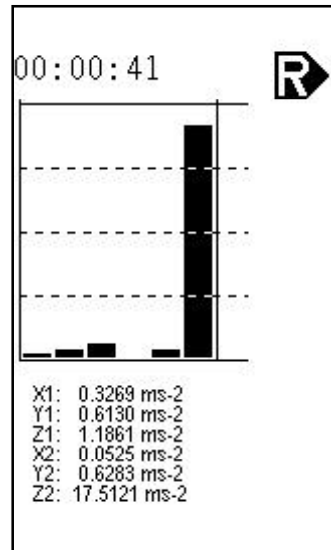
- rmsvalues 6 channels

RMS	
1:	0.0212
2:	0.0539
3:	0.0586
4:	0.0426
5:	0.0902
6:	0.0892



Display during measurement

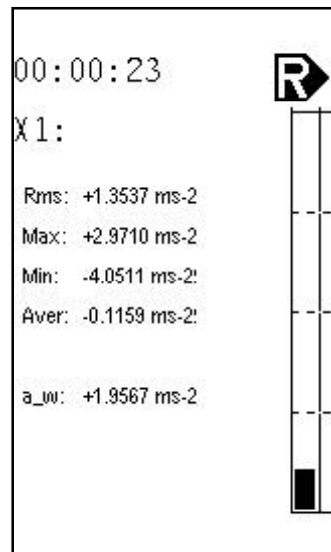
- 6 ch graphical & numerical





Display during measurement

- Separate channels, graphical & numerical with a_w (weighted acceleration value)





Display during measurement

- Separate channels, numerical

```
Chan 1 R  
Min: -0.02154  
Max: 0.03424  
Del: 0.05577  
Mit: -0.01363  
Rms: 0.01273
```



Display after measurement

- After the measurement the a_w (overall weighted acceleration indices) and separate results are displayed

```
Results
-----
16.09.07 20:48:20
WB ISO 2631_1
60 s
X1: 0.134 ms-2
Y1: 0.162 ms-2
Z1: 0.063 ms-2
X2: 0.043 ms-2
Y2: 0.093 ms-2
Z2: 0.089 ms-2
```

Memory



- SD card memory, up to 8 GB
- Files are automatically stored
- 2 files per measurement, raw data (.vmd) and results (.vcd)
- 6 channels measurements uses approx. 2 MB per 1 minute



Recalling measurements

MeasData	
000103	085636
000105	085748
070910	
070911	
070912	
070913	
070914	
070916	
070917	



Deleting a measurement

- Confirmation of the choice before really deleting the measurement

```
MeasData
-----
000103 085636
000105 085748
listing
definite clear?
070917
  yes  no
070917
```



Use of Exit button

go on with:

TEST
START
RECALL
SETUP



Audio recording with Nor140

- Possibility to connect the Nor133/136 (as Master or Slave) to the Nor140 and start a synchronized audio-recording, which can later be added to the data in the project made in the NorVibraTest SW

```
Special
-----
J.M.D 07.09.20
h:m:s 22:22:27
Language
  english
Multi Device
  Master
Options
  000

Appl u2.0.3762 2007-09-07 15:54
Svs 1.0.2359 2007-09-07 13:54
```

```
Special
-----
J.M.D 07.09.20
h:m:s 22:22:27
Language
  english
Multi Device
  Slave
Options
  000

Appl u2.0.3762 2007-09-07 15:54
Svs 1.0.2359 2007-09-07 13:54
```



Setup, special - language

- Choice of language (at present between English and German)

```
Special
-----
J.M.D 07.09.20
h:m:s 22:22:27
Language
  english
Multi Device
  --
Options
  000
Appl u2.0.3762 2007-09-07 15:54
Svs 1.0.2359 2007-09-07 13:54
```

```
Extras
-----
J.M.D 07.09.20
h:m:s 22:22:27
Sprache
  deutsch
Kopplung
  --
Optionen
  000
Appl u2.0.3762 2007-09-07 15:54
Svs 1.0.2359 2007-09-07 13:54
```