



# LMS SCADAS XS

# LMS Smart Scope

## LMS SCADAS XS and Smart Scope at a glance

### LMS SCADAS XS Hardware overview:

- Modes of Operation
  - Wi-Fi (connected to Smart Scope app)
  - Standalone
  - Front-end (connected to Test.Lab) via USB
- Input channels
  - Binaural headset, SPDIF Binaural input
  - Voltage/ICP, GPS, CAN, Tacho
- Data storage on microSD card

### LMS Smart Scope app overview:

- Measurement template
- Measurement control
- Data Processing on tablet

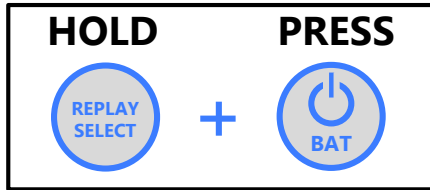


# LMS SCADAS XS – Buttons...



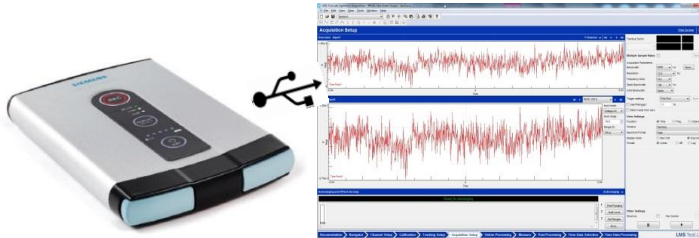
# LMS SCADAS XS – 3 Operation Modes

To toggle between different modes



If you Hold BAT, XS will power down!

## USB - Front End (Test.Lab)



- Measurement Start/Stop controlled by Test.Lab software
- Data storage on PC disk
- Extensive real time and post processing options

## Wi-Fi Tablet (SmartScope)



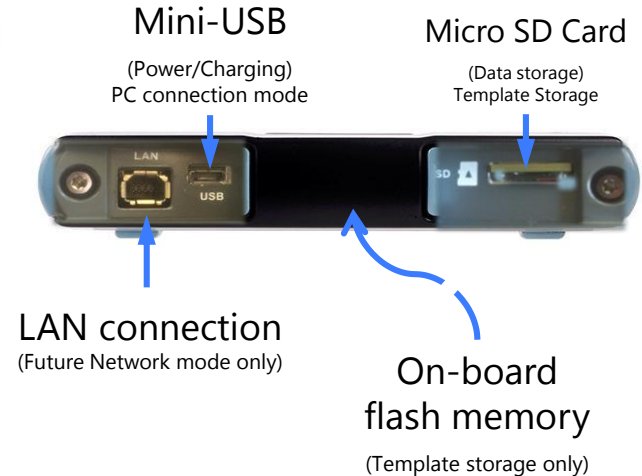
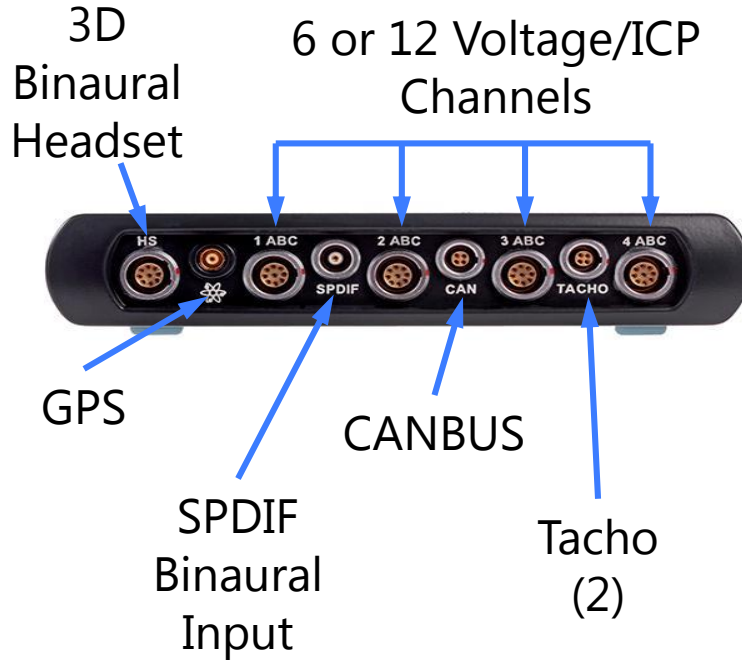
- Remote Start/Stop Acquisition
- Test Setup & Template Selection
- Data Verification & Statistics

## Standalone



- No tablet required
- Uses 1st template (alphabetically) on MicroSD card
- Play back last recording (requires headphones)

# LMS SCADAS XS – Hardware Overview



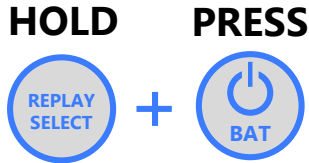
# Launching LMS SmartScope

Power On  
SCADAS XS

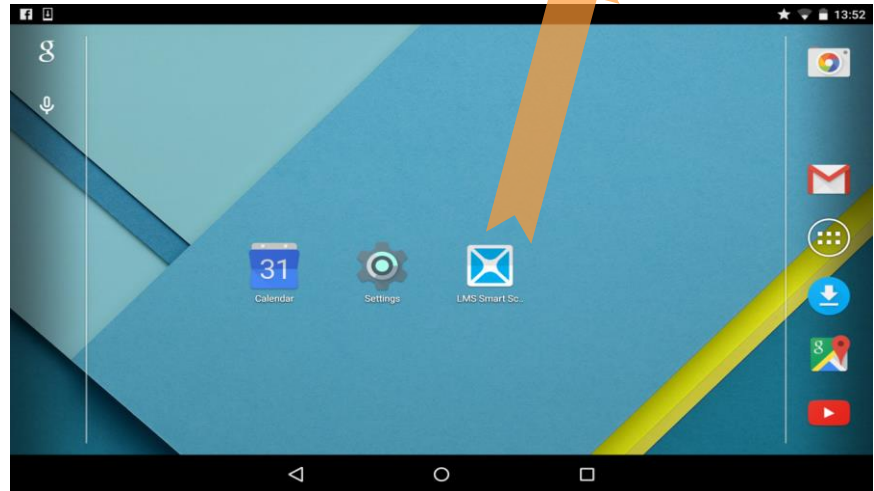
**HOLD BAT till REC  
ring starts flashing**



Change XS  
mode to WLAN



Launch  
LMS Smart Scope

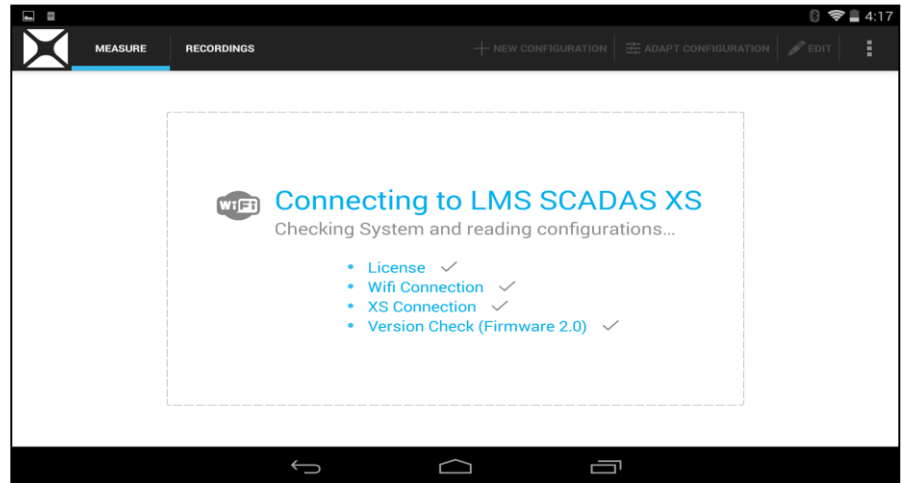


## Connecting to SCADAS XS via Wi-Fi

Smart Scope app connects automatically to the previously used XS front-end.

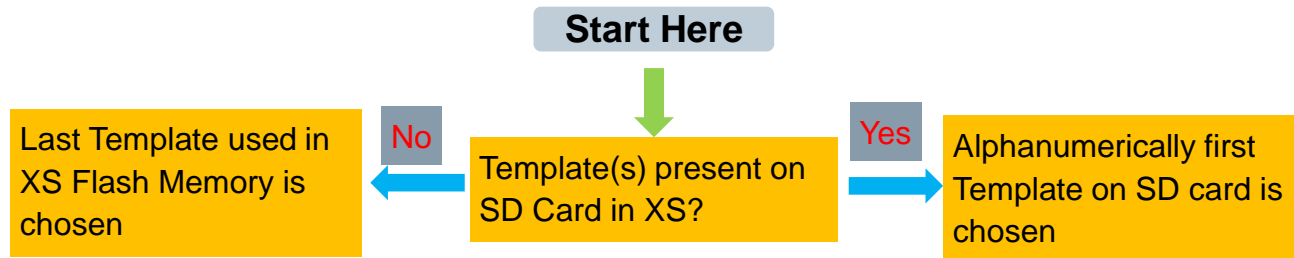
Connecting to a different XS frontend is also possible:

- Select a different front-end in Android settings  
or
- Connect to a different front-end at Smart Scope  
or
- Use “Connect To” option inside the app



## XS Template Selection Logic in Stand-alone Mode

A template or configuration file (extension .xrdf) is required to acquire data with XS. The selection of the template depends on whether one is present on the SD card or not. Multiple templates may also be present on the SD card. The logic is presented below.





# Creating a new measurement template

The screenshot shows the Siemens SCADA interface. The top navigation bar has a 'MEASURE' tab highlighted with a blue circle and a '+ NEW CONFIGURATION' button highlighted with a red circle. Below the navigation bar, the status bar indicates 'connected to LMS-SCADAS-XS-22B5'. The main content area displays a list of measurement templates:

Measurement Name	Start Time	End Time	Size	Action
RUNUP ✓	23.10.2014, 17:20:00	23.10.2014, 17:20:00	41.3 KB	Measure
test_xs_4 ✓	11.11.2014, 22:08:00	11.11.2014, 22:08:00		Measure
XS_Temp ✓	04.11.2014, 16:49:00	04.11.2014, 16:49:00	35.1 KB	Measure
XSTEMPB ✓	04.11.2014, 17:30:00	04.11.2014, 17:30:00	35.1 KB	Measure

Instructions for creating a new measurement template:

1. Start in MEASURE tab.
2. Tap on NEW CONFIGURATION

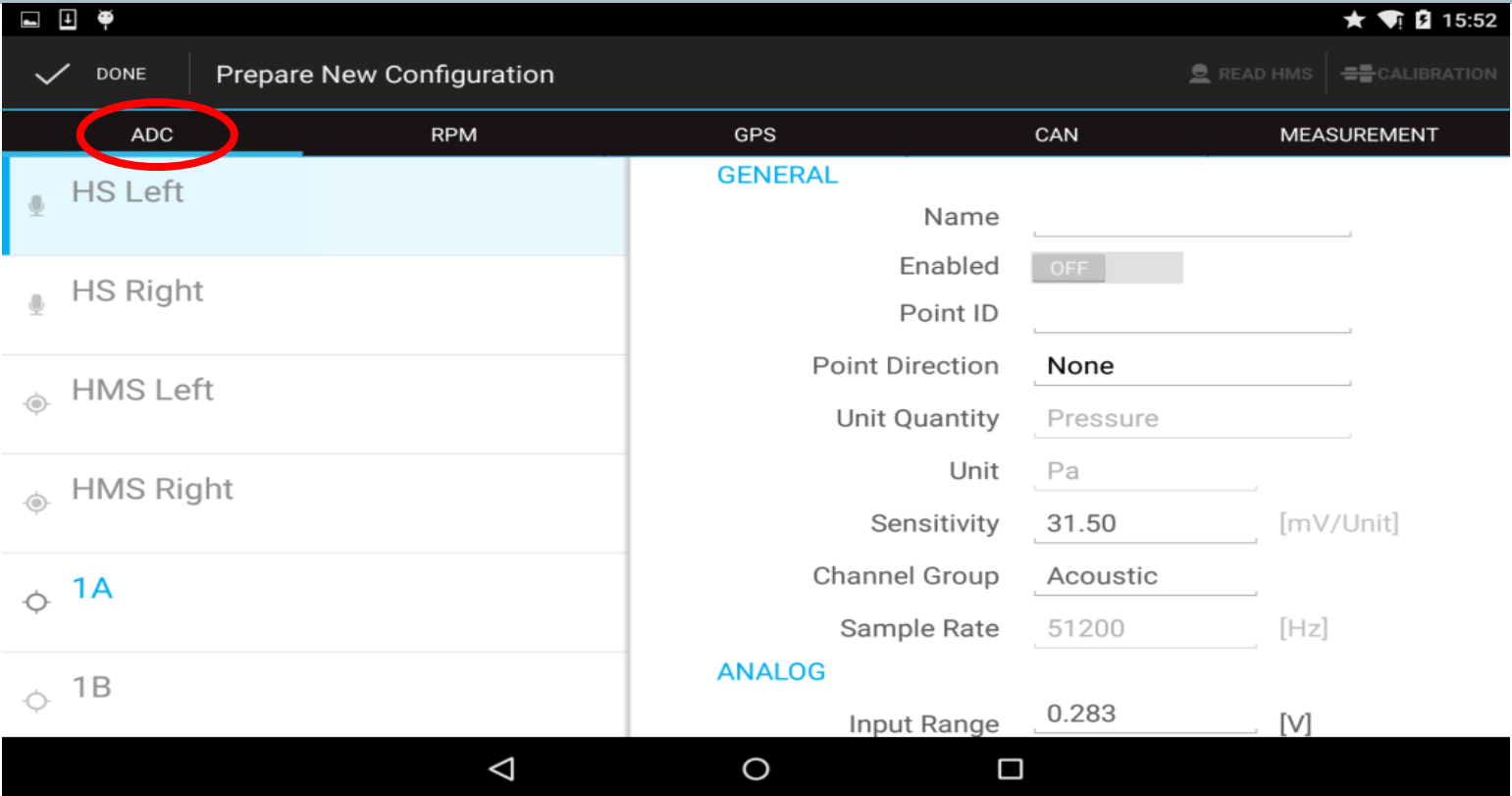
# Different pages available for different channel types

The screenshot displays the 'Prepare New Configuration' screen in a Siemens application. The top navigation bar contains five tabs: ADC, RPM, GPS, CAN, and MEASUREMENT. Each tab is highlighted with a colored circle and an arrow pointing to a corresponding setup page:

- ADC** (Red circle): Points to the 'Analog Dynamic Channels setup' page.
- RPM** (Purple circle): Points to the 'Tachometer/Tracking Setup' page.
- GPS** (Yellow circle): Points to the 'GPS Setup' page.
- CAN** (Blue circle): Points to the 'CAN (incl. OBD2) Setup' page.
- MEASUREMENT** (Green circle): Points to the 'General measurement settings' page.

The right side of the screen shows the 'GENERAL' settings for the selected channel type, including fields for Name, Enabled (OFF), Point ID, Point Direction, Quantity, Sensitivity (31.50 [mV/Unit]), Channel Group (Acoustic), Sample Rate (51200 [Hz]), and Input Range (0.283 [M]).

# ADC channel definition



Prepare New Configuration

ADC RPM GPS CAN MEASUREMENT

HS Left

HS Right

HMS Left

HMS Right

1A

1B

**GENERAL**

Name \_\_\_\_\_

Enabled  OFF

Point ID \_\_\_\_\_

Point Direction **None**

Unit Quantity Pressure

Unit Pa

Sensitivity 31.50 [mV/Unit]

Channel Group Acoustic

Sample Rate 51200 [Hz]

**ANALOG**

Input Range 0.283 [V]

# 3D Binaural Headset Setup

**ADC**      **RPM**      **GPS**      **CAN**      **MEASUREMENT**

✓ DONE      Prepare New Configuration      READ HMS      CALIBRATION

**HS Left: Driver\_left\_ear** (left)      **GENERAL**

Name: Driver\_left\_ear      3. Name channel

Enabled: ON      2. Enable channel

Point ID: left

Point Direction: S

Unit Quantity: Pressure

Unit: Pa

Sensitivity: 31.50 [mV/Unit]

Channel Group: Acoustic

Sample Rate: 51200 [Hz]

**ANALOG**

Input Range: 0.283 [V]

1. Select channel

2. Enable channel

3. Name channel

Sensitivity, Channel Group & ICP set automatically for HS

# Tri-axial accelerometer setup

★ 15:31

✓ DONE Prepare New Configuration READ HMS CALIBRATION

All other transducers need to be set up, there will be no default settings.

Name

Point ID/Direction

Measured Quantity

Unit

Sensitivity

Channel Group (sets sample rate)

ICP/Voltage

GPS	CAN	MEASUREMENT
<b>GENERAL</b>		
→ Name	Triax1_z	
→ Enabled	<input checked="" type="checkbox"/> ON	
→ Point ID	Acc_dir_z	
→ Point Direction	+Z	
→ Unit Quantity	Acceleration	2. Set other settings
→ Unit	g	
→ Sensitivity	100.00	[mV/Unit]
→ Channel Group	Vibration	
→ Sample Rate	12800	[Hz]
<b>ANALOG</b>		
→ Input Range	10.00	[V]

1A: Triax1\_z 1. Select Channel

Acc\_dir\_z

1B

# Tacho setup – RPM

Prepare New Configuration

ADC **RPM** GPS CAN MEASUREMENT

T1: Tacho 1  
Tacho 1

T2: Tacho 2  
Tacho 2

Two tachometers included with SCADAS XS.

**GENERAL**

Name Tacho 1

Enabled  ON

Point ID Tacho 1

Point Direction None

Unit Quantity Frequency

Unit 1/min

Sample Rate 204800 [Hz]

**ANALOG**

Input Range 22.00 [V]

Coupling DC

Trigger Level 0 [V]

# GPS activation

The screenshot shows the 'Prepare New Configuration' screen with the 'GPS' tab selected. The left sidebar lists six GPS points: G1: Speed (GPS1), G2: Satellites (GPS2), G3: Latitude (GPS3), G4: Longitude (GPS4), G5: Altitude (GPS5), and G6: EastVelocity (GPS6). The right panel shows the configuration for G1: Speed under the 'GENERAL' section. The 'Enabled' toggle is turned on, and the 'Sample Rate' is set to 4.0 Hz.

Point ID	Name	Enabled	Point ID	Point Direction	Unit Quantity	Unit	Sample Rate
GPS1	Speed	ON	GPS1	None	Velocity	m/s	4.0 [Hz]

# CAN setup

Prepare New Configuration

ADC RPM GPS **CAN** MEASUREMENT

X1: C004\_Calculated\_Load\_Value  
OBD\_PID::C004\_Calculated\_Load\_Value

X2: C005\_Engine...nt\_Temperature  
OBD\_PID::C005\_Engine\_Coolant\_Temperature

X3: C00C\_Engine\_RPM  
OBD\_PID::C00C\_Engine\_RPM

X4: C00D\_Vehicle\_Speed  
OBD\_PID::C00D\_Vehicle\_Speed

X5: C00E\_Ignitio...iming\_Advance  
OBD\_PID::C00E\_Ignition\_Timing\_Advance

X6: C00F\_Intake...ir\_Temperature  
OBD\_PID::C00F\_Intake\_Air\_Temperature

GENERAL

SmartScope provides subset of Legislative OBD2 channels (shown on left).

Activation of other CAN channels should be defined in Test.Lab/Test.Xpress through a dbc file (while connected to an XS as a front-end) and saved as a SmartScope template (.xrdf file). When that template is opened in SmartScope, these CAN channels will show up on the left.

Update Rate  [Hz]



# Measurement - general acquisition settings

When setup is complete, hit "DONE"
★ 📶 🔋 15:37

READ HMS

ADC
RPM
GPS
CAN
MEASUREMENT

**MEASUREMENT**

Number of Runs

Dead Time  [s]

**CAN SETTINGS**

CAN Controller Mode  CAN Baud rate selection (vehicle dependent)

Baud Rate

**START TRIGGER**

Mode

Slope  ← Trigger definition →

Channel

Level  [1/min]

**FREQUENCY**

System Samplerate  [Hz]

Acoustic  Sample rate of Channel Groups

Vibration

Other  [Hz]

**STOP TRIGGER**

Mode

Slope

Channel

Level  [1/min]

# Creating a new measurement template

MEASURE RECORDINGS + NEW CONFIGURATION ADAPT CONFIGURATION EDIT

connected to LMS-SCADAS-XS-22B5

MAC1 ✓ 18.11.2014, 21:58:00 18.11.2014, 21:58:00 40.4 KB New Template appears in list	▶ Measure
RUNUP ✓ 23.10.2014, 17:20:00 23.10.2014, 17:20:00 41.3 KB	▶ Measure
test_xs_4 ✓ 11.11.2014, 22:08:00 11.11.2014, 22:08:00 34.6 KB	▶ Measure
XS_Temp ✓ 04.11.2014, 16:49:00 04.11.2014, 16:49:00 35.1 KB	▶ Measure

# Making a Measurement

MEASURE RECORDINGS + NEW CONFIGURATION ADAPT CONFIGURATION EDIT

connected to LMS-SCADAS-XS-22B5

MAC1 ✓ 18.11.2014, 21:58:00 18.11.2014, 21:58:00 18.11.2014, 21:58:00	Measure
RUNUP ✓ 23.10.2014, 17:20:00 23.10.2014, 17:20:00 41.3 KB	Measure
test_xs_4 ✓ 11.11.2014, 22:08:00 11.11.2014, 22:08:00 34.6 KB	Measure
XS_Temp ✓ 04.11.2014, 16:49:00 04.11.2014, 16:49:00 35.1 KB	Measure

2. Tap "Measure"

1. Select template by tapping on the template row anywhere in this area

# Starting a Measurement – BASE view

HS Left: left

74.9  
[Pa] RMS|dB

HS Right: right

74.6  
[Pa] RMS|dB

1A: Acc\_dir\_z

0.011  
[g] RMS|Lin

READY  
Press start to record

Swipe Left or Right  
To change pages

Tap here to start  
Measurement!

Start

STATS

ELAPSED TIME

00:00:00  
[h:m:s]

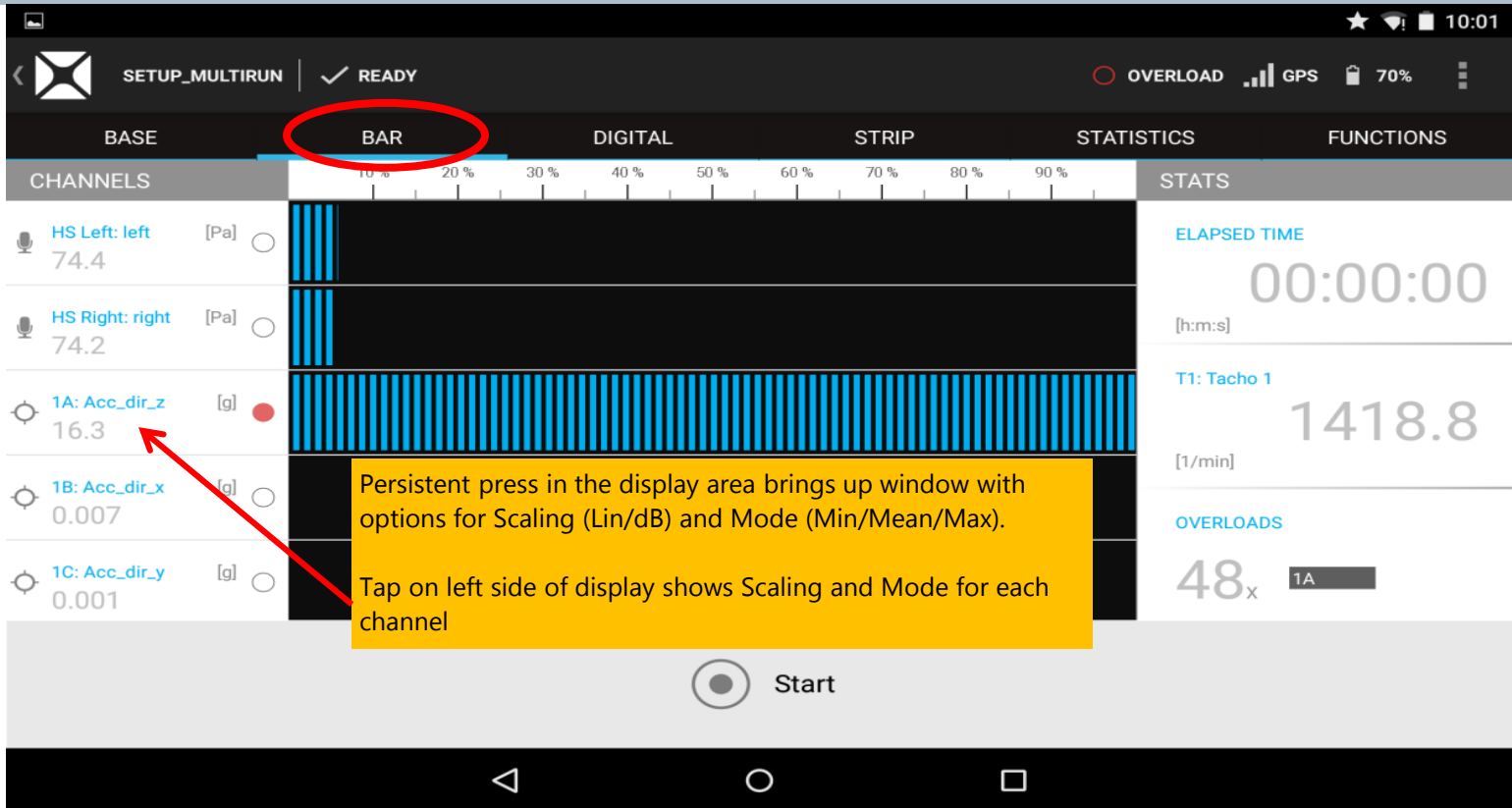
T1: Tacho 1

1418.8  
[1/min]

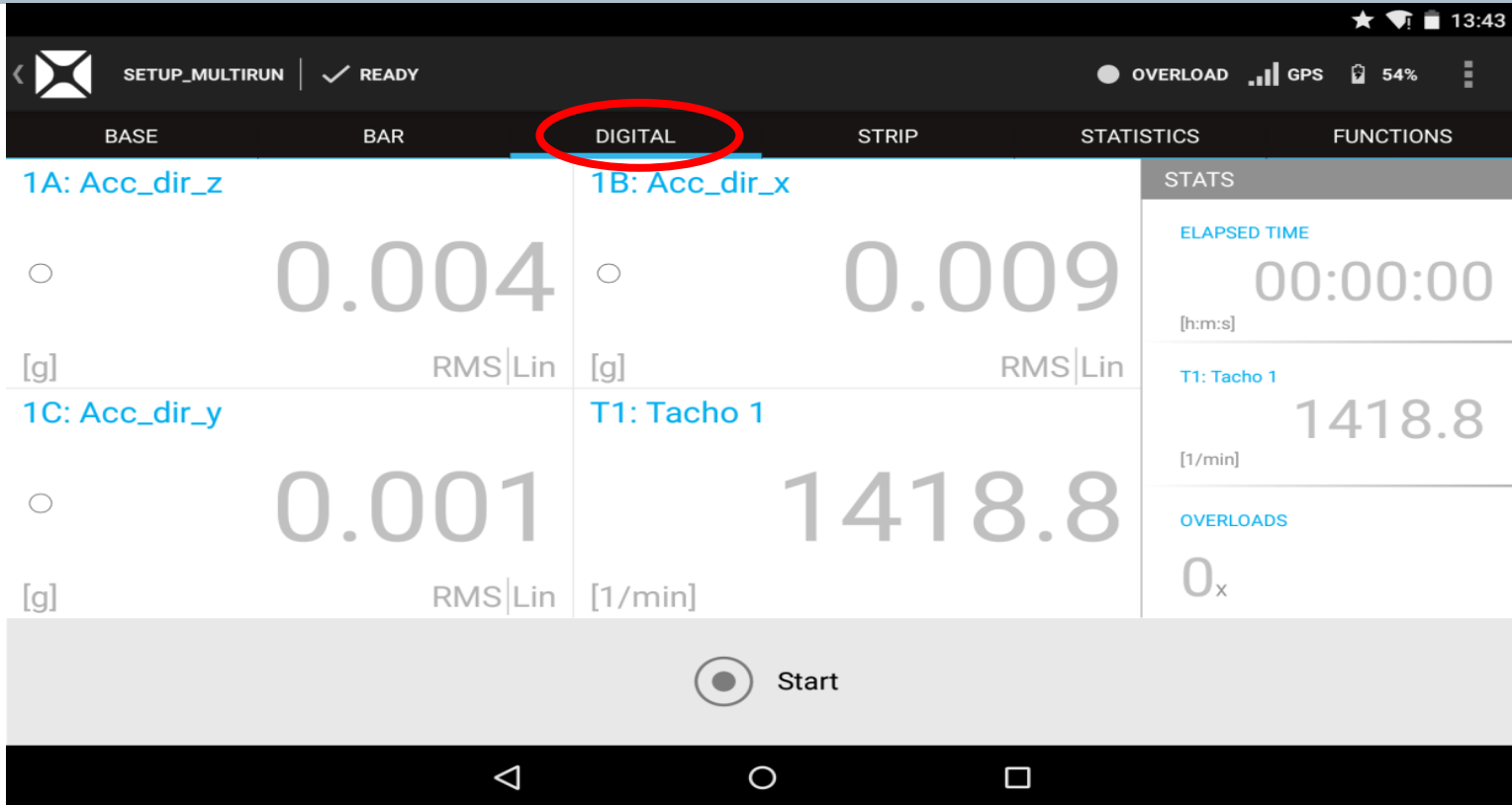
OVERLOADS

0<sub>x</sub>

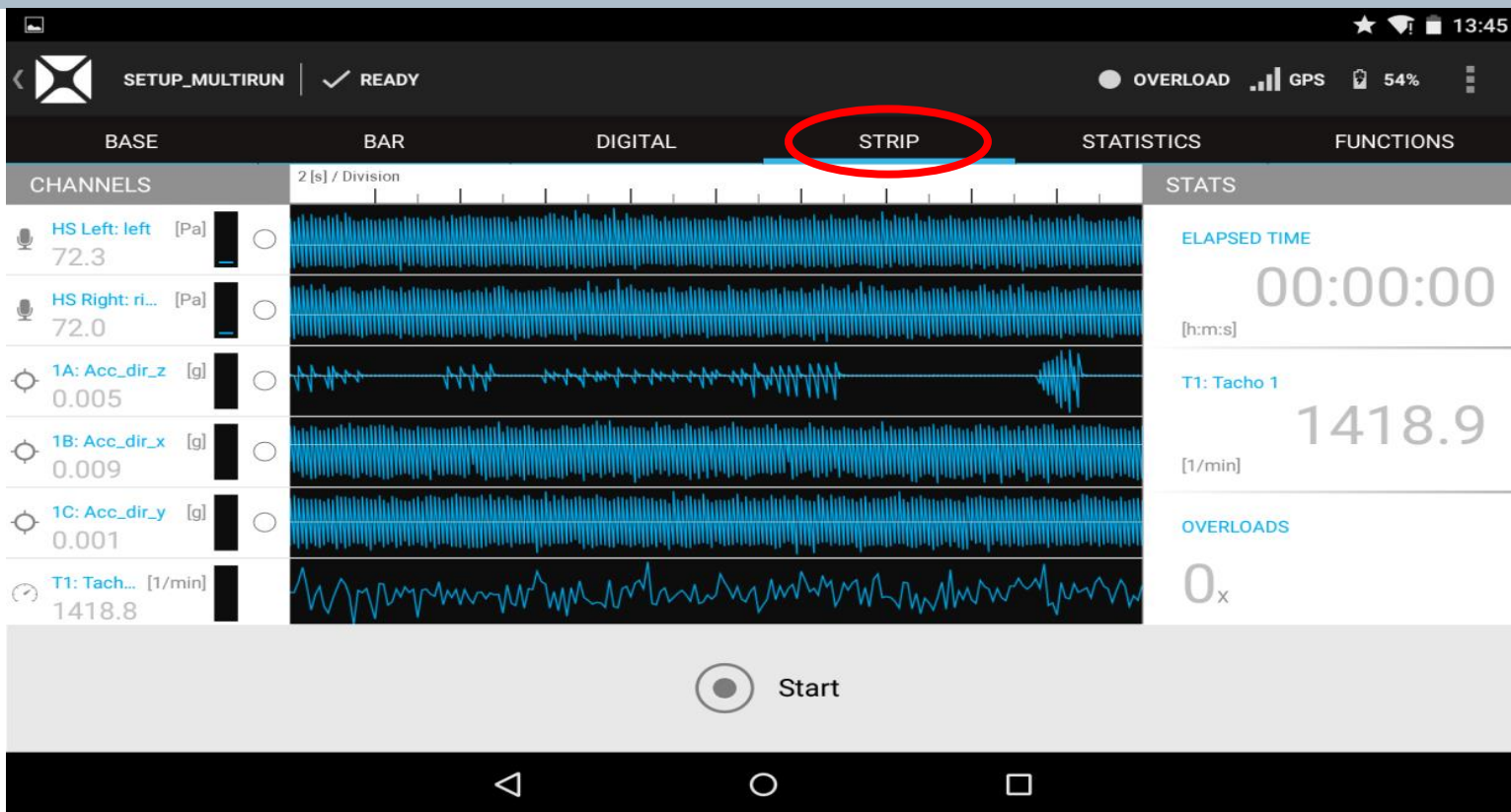
# Bar chart display






## Digital display















# Strip chart display




# Statistics display



★   13:45



 SETUP\_MULTIRUN |  READY
 
 OVERLOAD
  GPS
  54%
 

BASE	BAR	DIGITAL		STRIP		STATISTICS	FUNCTIONS
CHANNELS	Min (inst)	Min	Max (inst)	Max	Mean (inst)	Mean	STATS
 HS Left: left [Pa]	<input type="radio"/> -300.0	-300.0	83.9	88.3	0.952	-300.0	<b>ELAPSED TIME</b> <span style="font-size: 2em;">00:00:00</span> [h:m:s]
 HS Right: right [Pa]	<input type="radio"/> -300.0	-300.0	83.4	87.9	5.25	-300.0	
 1A: Acc_dir_z [g]	<input type="radio"/> -0.019	-1.25	0.017	0.881	-0.000	-2.51E-5	<b>T1: Tacho 1</b> <span style="font-size: 2em;">1418.8</span> [1/min]
 1B: Acc_dir_x [g]	<input type="radio"/> -0.060	-0.087	0.040	0.053	-0.001	6.50E-7	
 1C: Acc_dir_y [g]	<input type="radio"/> -0.004	-0.005	0.004	0.005	-8.95E-5	1.84E-6	<b>OVERLOADS</b> <span style="font-size: 2em;">0<sub>x</sub></span>



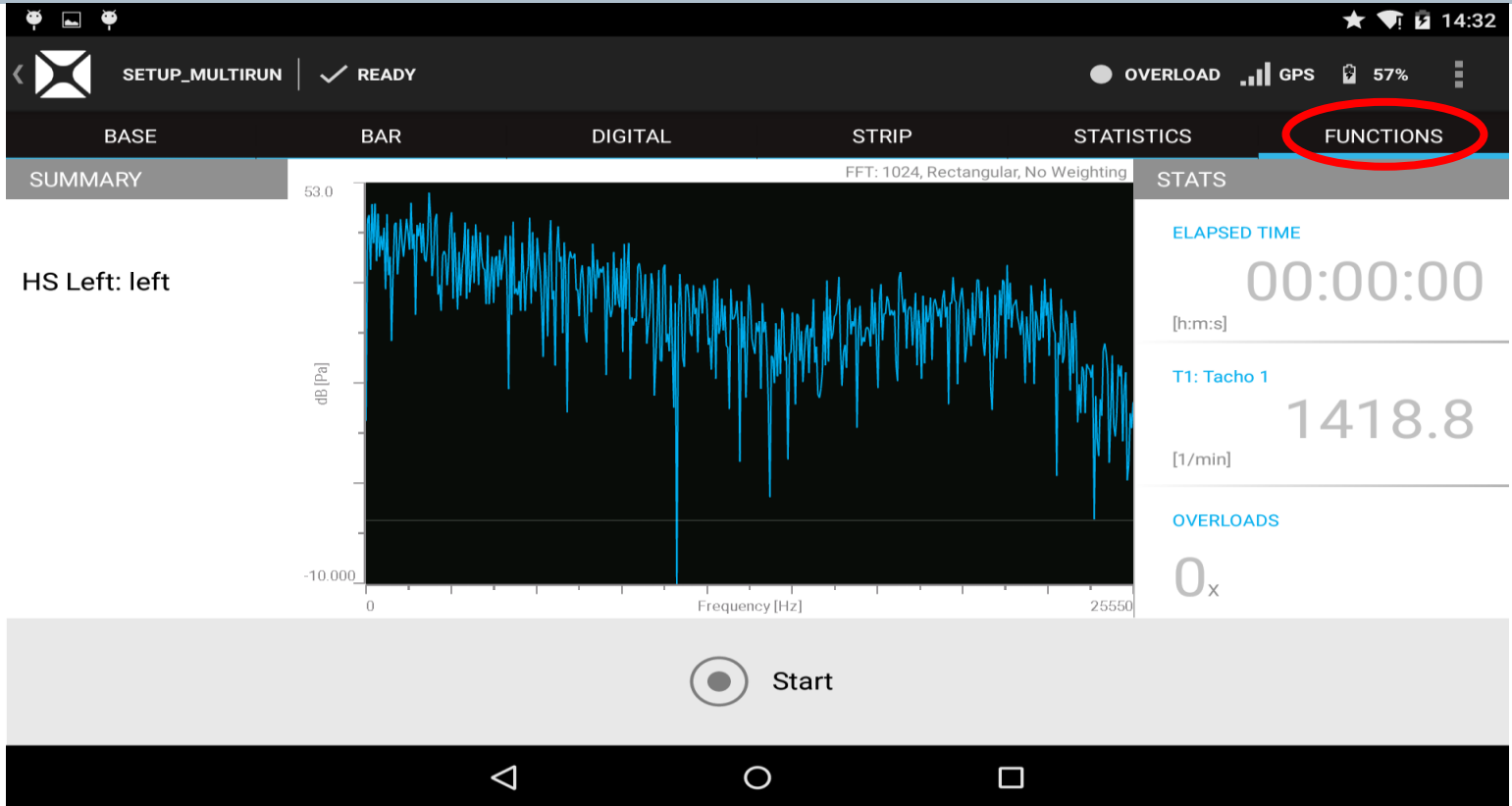
Start



Reset



# FUNCTIONS in real time



# FUNCTIONS in real time

Function Selection

- Time
- FFT
- Octave
- SPL
- AI
- Loudness
- Order
- Single Order

Open the Functions Selection list.  
Define processing parameters.

57% 14:32

BASE

SUMMARY

HS Left: left

00:00:00

1418.8

VERLOADS

# While Monitoring a Recording

The screenshot shows the Siemens monitoring interface during a recording session. The top status bar displays the run name "SETUP\_MULTIRUN\_001" (circled in yellow), along with system icons for star, Wi-Fi, battery, and time (13:45). A yellow callout box points to the run name with the text "Tap the run name to change it".

The main interface is divided into several sections:

- Navigation Bar:** BASE (selected), BAR, DIGITAL, STRIP, STATISTICS, FUNCTIONS.
- Left Panel:** Displays three sensor readings:
  - HS Left: left: 72.4 [Pa] RMS|dB
  - HS Right: right: 72.2 [Pa] RMS|dB
  - 1A: Acc\_dir\_z: 0.005 [g] RMS|Lin
- Center Panel:** A large red circular progress indicator with a central stop icon. Text reads "RECORDING" and "Press stop to finish".
- Right Panel:** Displays recording statistics:
  - Elapsed/Remaining time: ELAPSED TIME 00:00:22 [h:m:s]
  - T1: Tacho 1: Tacho value 1418.8 [1/min]
  - OVERLOADS: 3x 1A (indicated by a grey bar)
- Bottom Panel:** A grey bar containing a "Start/Stop button" (a grey square) and the text "Stop". A yellow callout box points to the "3x 1A" indicator with the text "Overload indication".

# Saving a measurement

The screenshot displays a mobile application interface for Siemens. At the top, a white notification bar with a folder icon and the text "Recording 'Setup\_multirun\_001' saved" is visible. Below this is a blue waveform representing a recording. A control panel is overlaid on the bottom half of the screen, featuring four buttons: "Analyse", "Recordings", "Configurations", and "Run Comment". Each button is annotated with a yellow callout box and a yellow arrow pointing to the button. The callouts are: "Analyze: Enter Analysis mode" (pointing to the Analyse button), "Recordings: Switch to Recordings page" (pointing to the Recordings button), "Configurations: Switch to Configurations page" (pointing to the Configurations button), and "Run Comment: Annotate the recording" (pointing to the Run Comment button). At the bottom of the control panel are two large buttons: "Start" (with a play icon) and "Done" (with a checkmark icon). The background shows a dark interface with various audio-related parameters and a status bar at the top right showing the time as 13:46.

Recording 'Setup\_multirun\_001' saved

Analyze: Enter Analysis mode

Recordings: Switch to Recordings page

Configurations: Switch to Configurations page

Run Comment: Annotate the recording

Analyse

Recordings

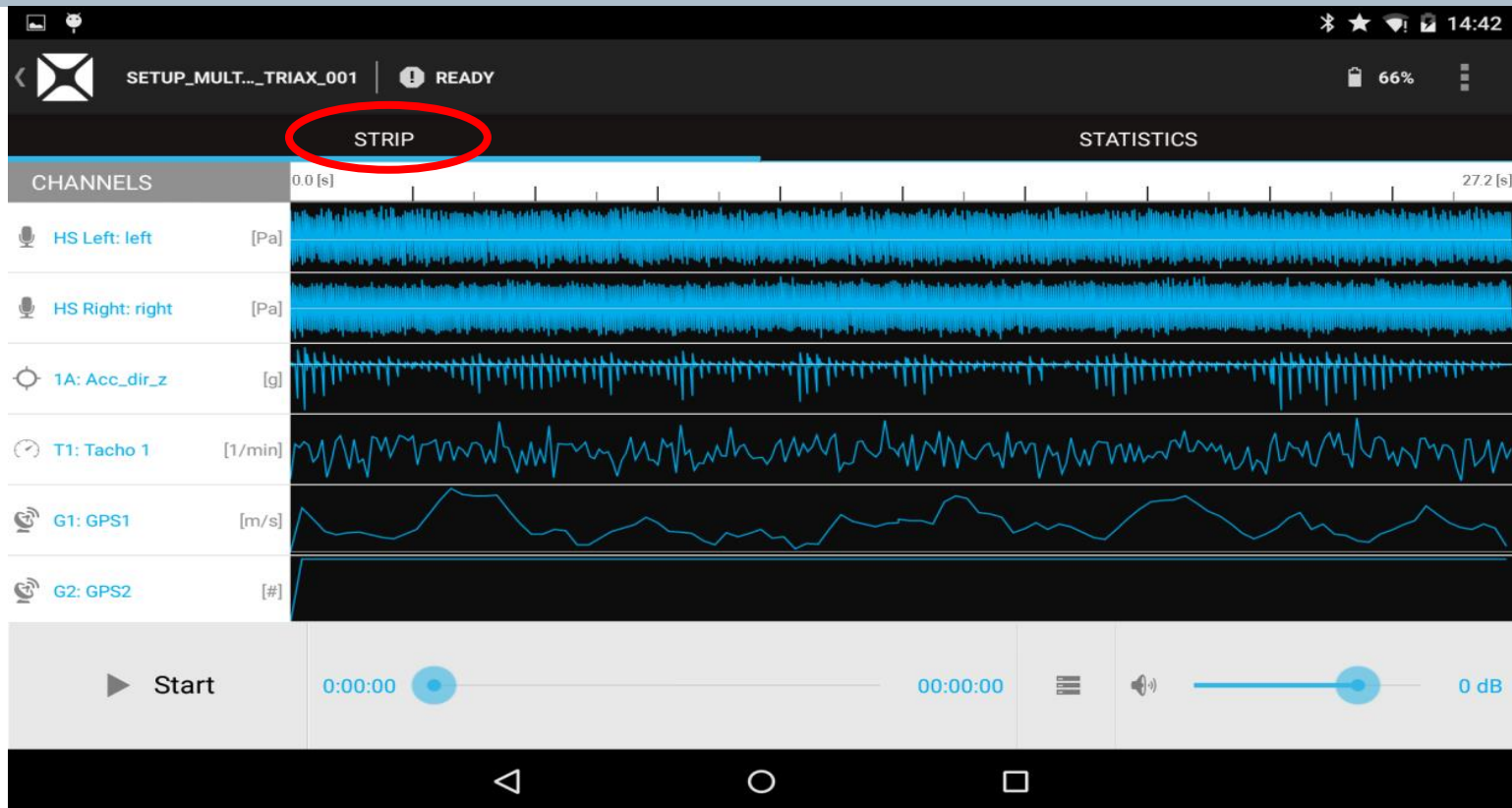
Configurations

Run Comment

Start

Done

# Analyze – strip chart



# Analyze – statistics table

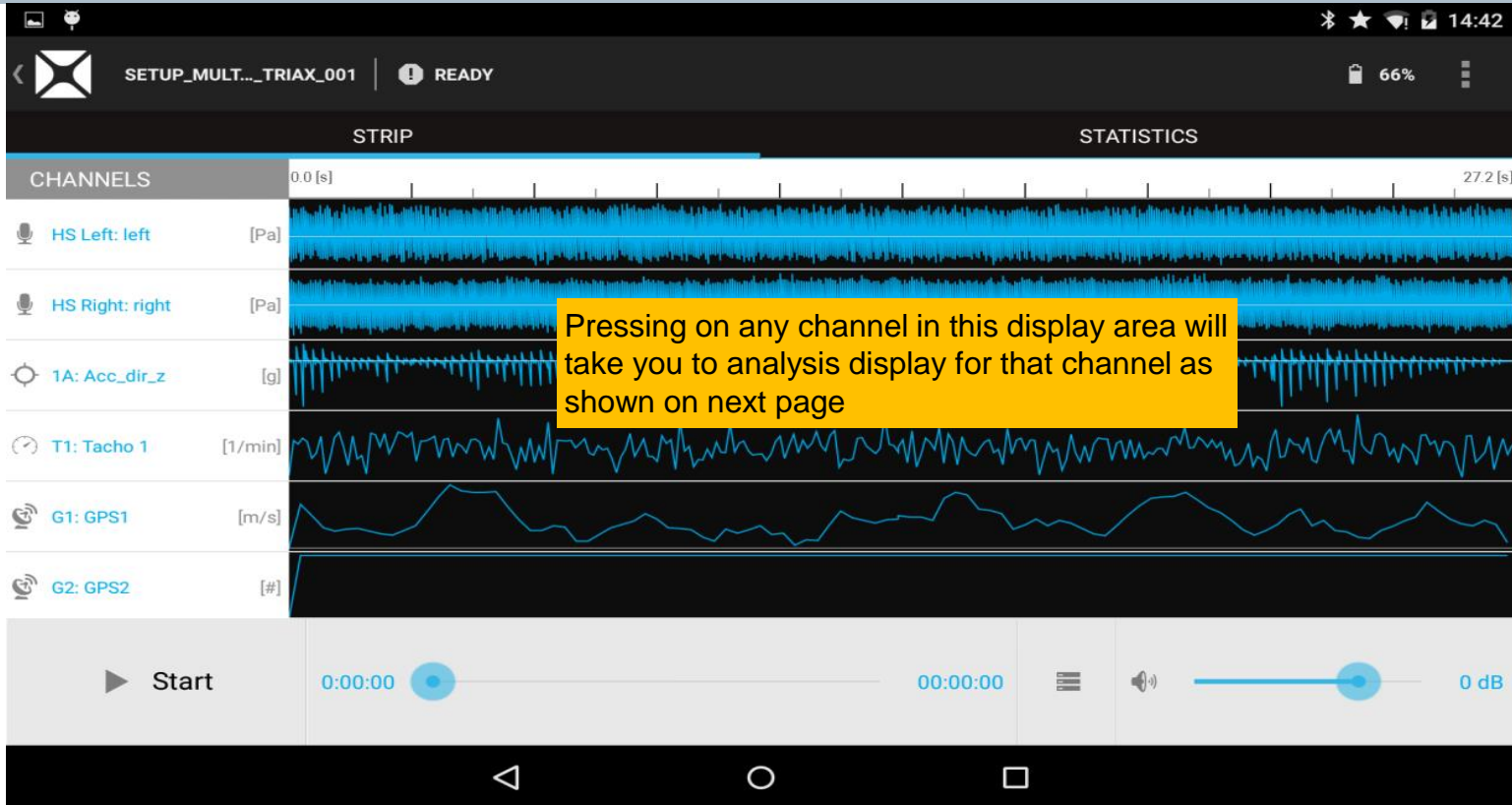
SETUP\_MULT...\_TRIAx\_001 | READY 66% 14:42

STRIP **STATISTICS**

CHANNELS	Min	Max	Mean	RMS	STD
HS Left: left [Pa]	-300.0	62.8	39.8	49.5	0.006
HS Right: right [Pa]	-300.0	53.6	23.0	40.0	0.002
1A: Acc_dir_z [g]	-2.43	0.929	8.35E-5	0.073	0.073

Start 0:00:00 00:00:00 0 dB

# Entering Functions (processing) mode



# Function selection

Tap here to bring up the Function Selection dialog box

FUNCTIONS

## Function Selection

Time

FFT

Octave

SPL

AI

Loudness

Order

Single Order



# Parameters selection

Tap here to bring up the Parameters dialog box

↑↓ Parameters

**Time**

Time Span [s]  
1 s

**FFT**

Blocksize  
4K

Weighting  
None

Window  
Hanning

Average

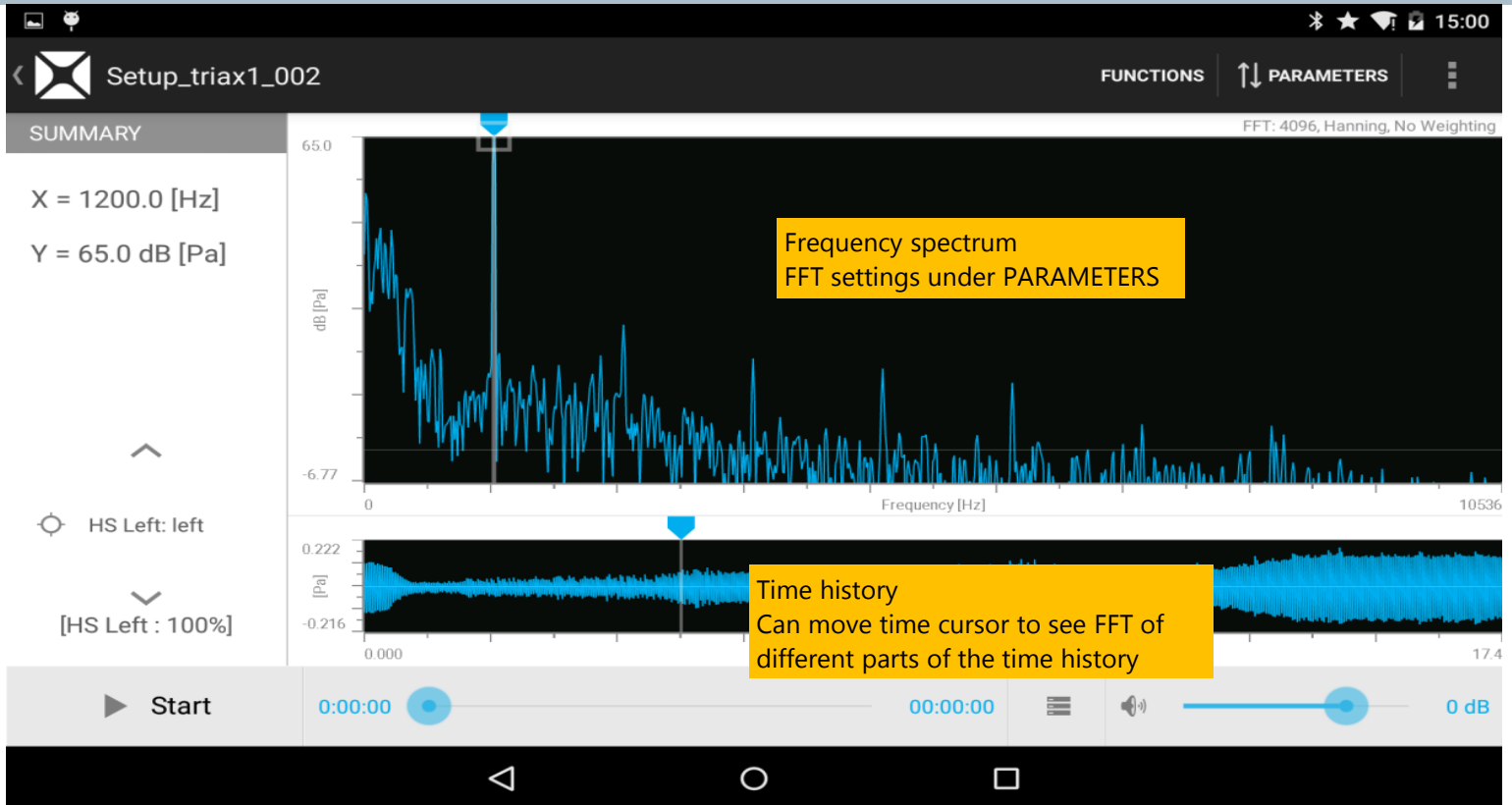
Cancel Done

Summary:  
X = 11900.0 [Hz]  
Y = 12.5 dB [Pa]

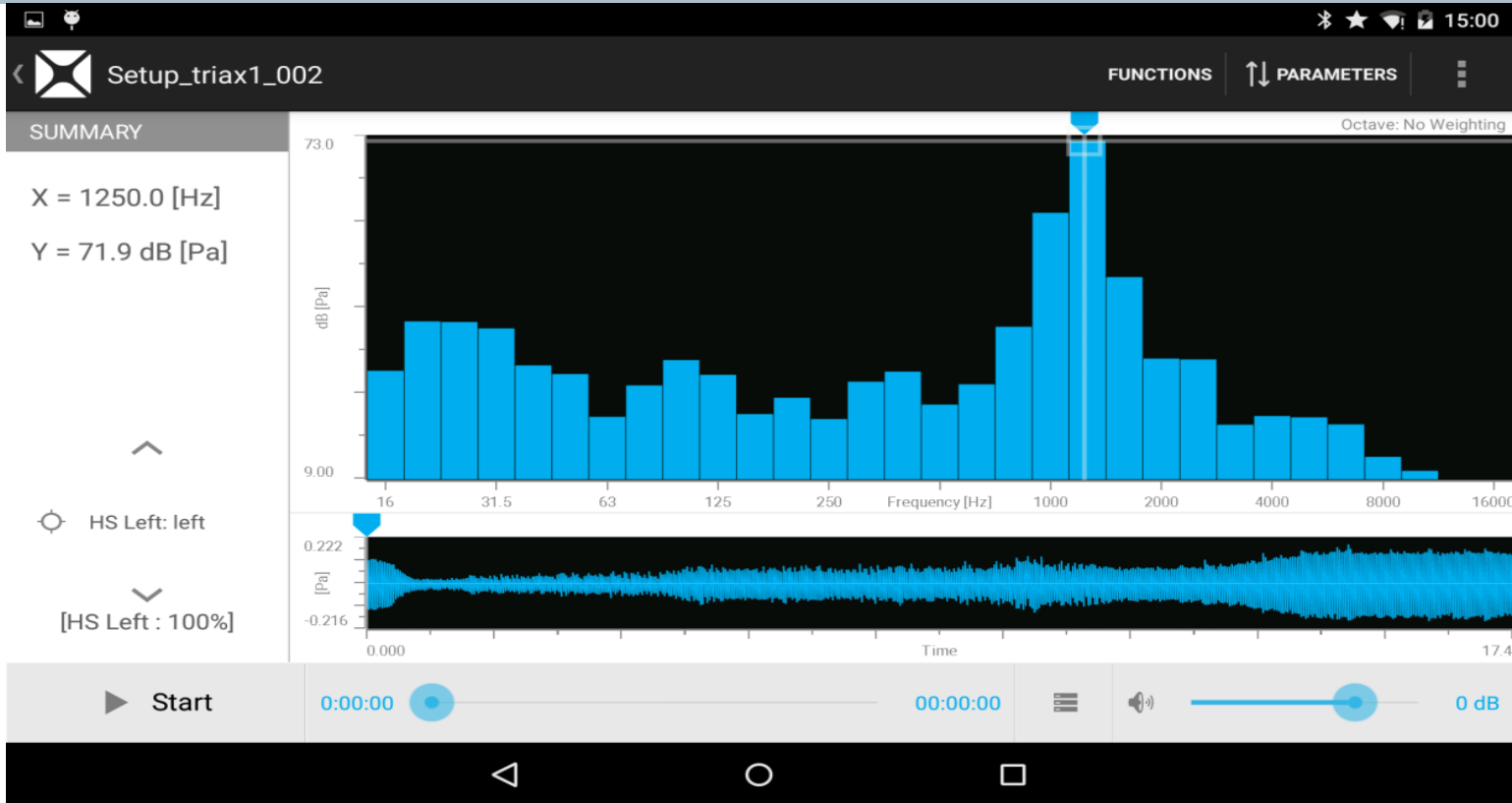
Start

0 dB

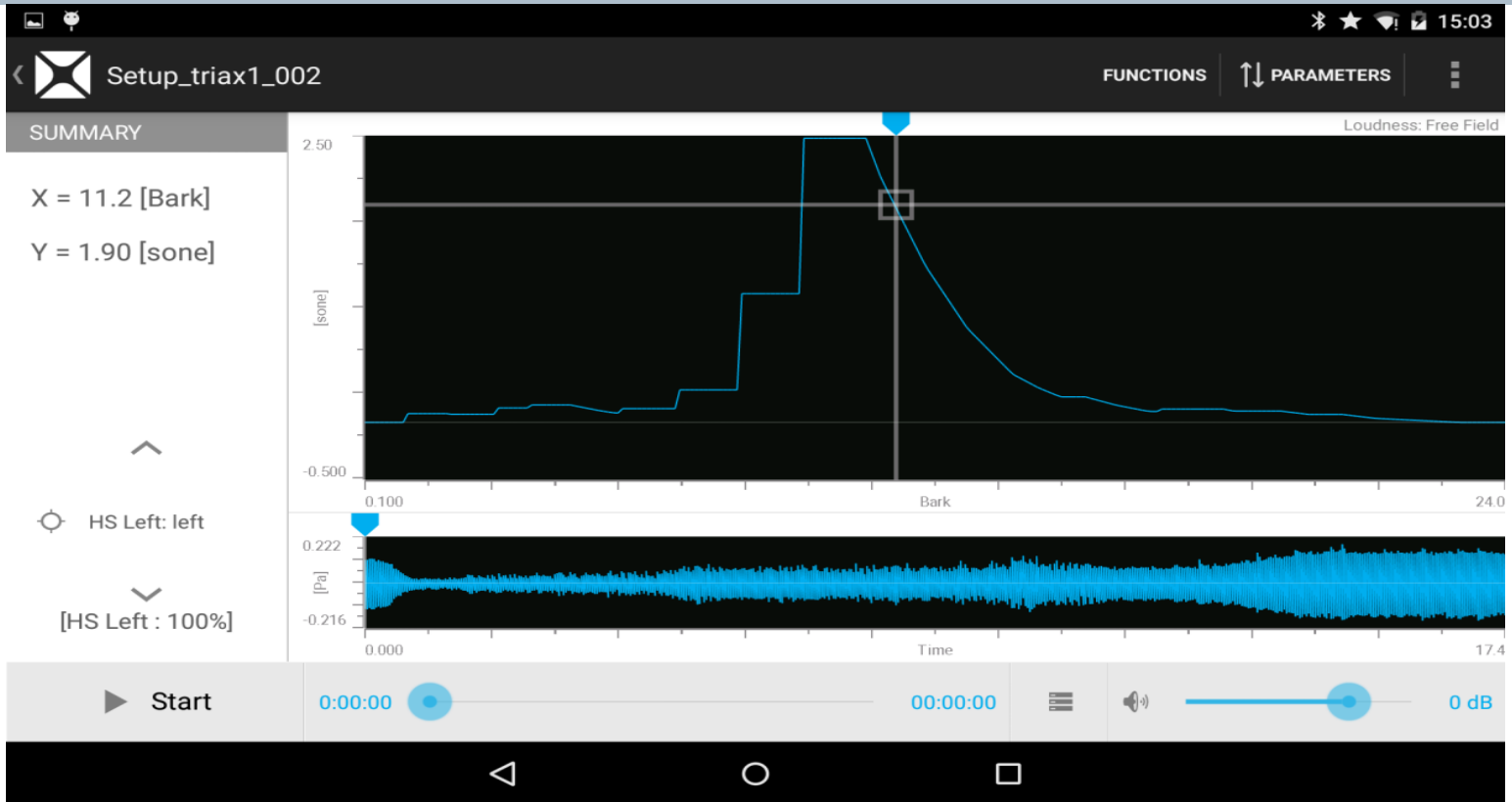
## FUNCTIONS: FFT



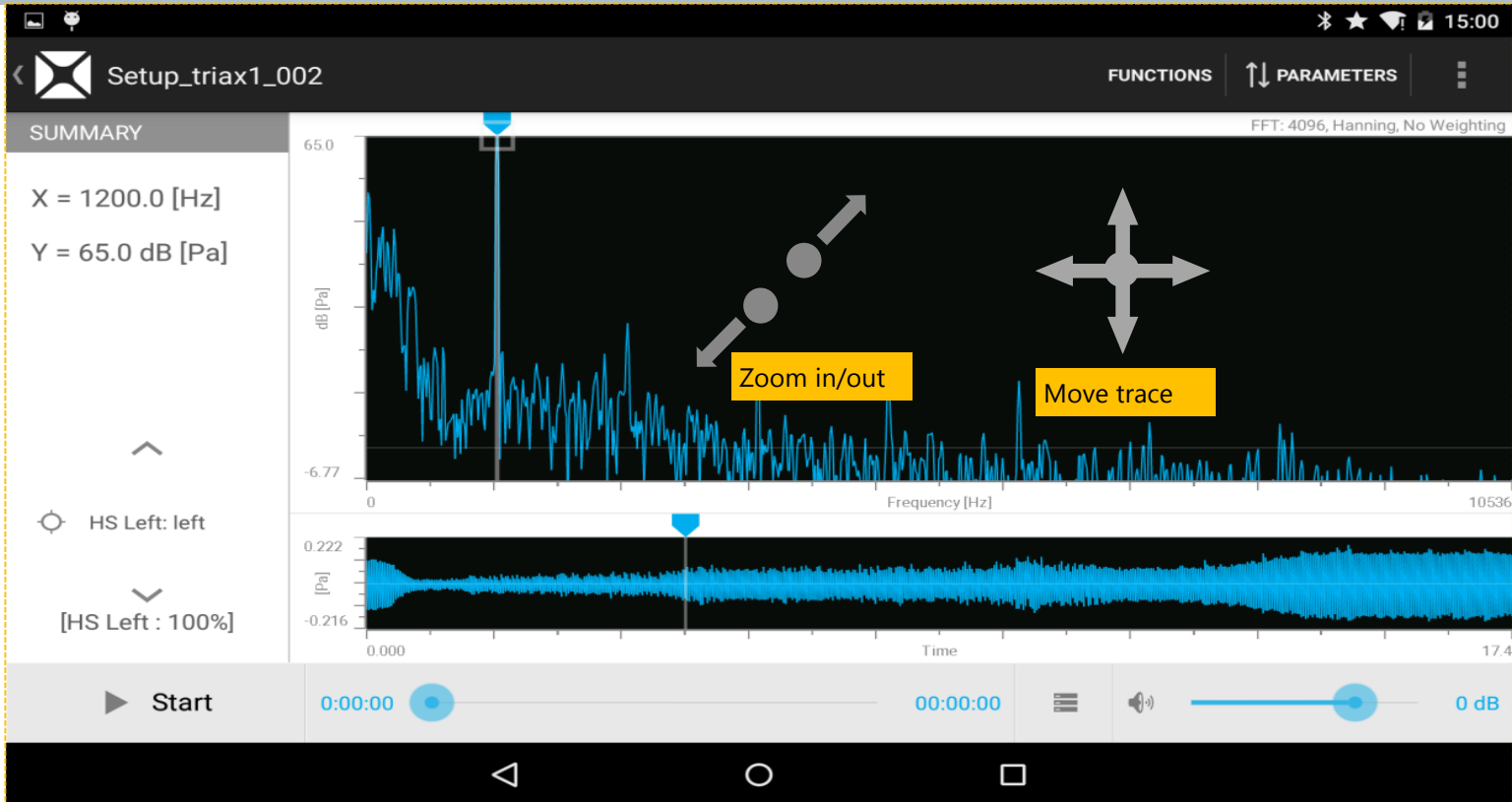
# FUNCTIONS: Octaves



# FUNCTIONS: Loudness



# Zooming in Functions



# Channel selection for Display and Audio Replay

**Channel Selection**

Show Channels ALL

Channel	Display (Eye)	Audio Replay (Speaker)	Audio Replay Toggle
HS Left	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
HS Right	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
T1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Annotations:

- Channel selection: For display and audio replay (Yellow box pointing to status bar)
- Will be replayed on binaural headset (Yellow box pointing to speaker icons)
- On/off For Audio Replay (Yellow box pointing to toggle switch)
- On/off For Display (Yellow box pointing to eye icon)

# Audio Replay Control

Setup\_triax1\_002

Replay in FUNCTIONS mode

FUNCTIONS

PARAMETERS

SUMMARY

X = 4.66 [s]

Y = 0.041 [Pa]

HS Left: left

Select channels and tap Start/Stop to control the replay  
Follow the replay progress in the bar

0:00:00

00:00:09

0 dB

Stop

## Post-recording Audio Replay

Recording 'Setup\_triax1\_005' saved

00:00:24 0 dB HS Left: left

Tap Start/Stop to control the replay  
Time cursor coupled with position in replay progress bar

Configurations Run Comment

Start Done



# Managing Recordings

The screenshot shows the Siemens SCADA interface. At the top, there is a navigation bar with two tabs: 'MEASURE' (highlighted with a blue circle) and 'RECORDINGS' (highlighted with a green circle). To the right of the tabs are buttons for '+ NEW CONFIGURATION', 'ADAPT CONFIGURATION', and 'EDIT'. Below the navigation bar, the status 'connected to LMS-SCADAS-XS-2AFC' is displayed. The main area shows a list of recordings. The first recording is 'B\_1abc' with a checkmark, timestamp '05.11.2015, 20:26', and size '42.0 KB'. The second recording is 'Z\_hs1a' with a checkmark, timestamp '05.11.2015, 20:48', and size '42.0 KB'. To the right of each recording is a 'Measure' button with a play icon. A red arrow points from the bottom left towards the 'Z\_hs1a' recording. At the bottom of the screen is the Android navigation bar.

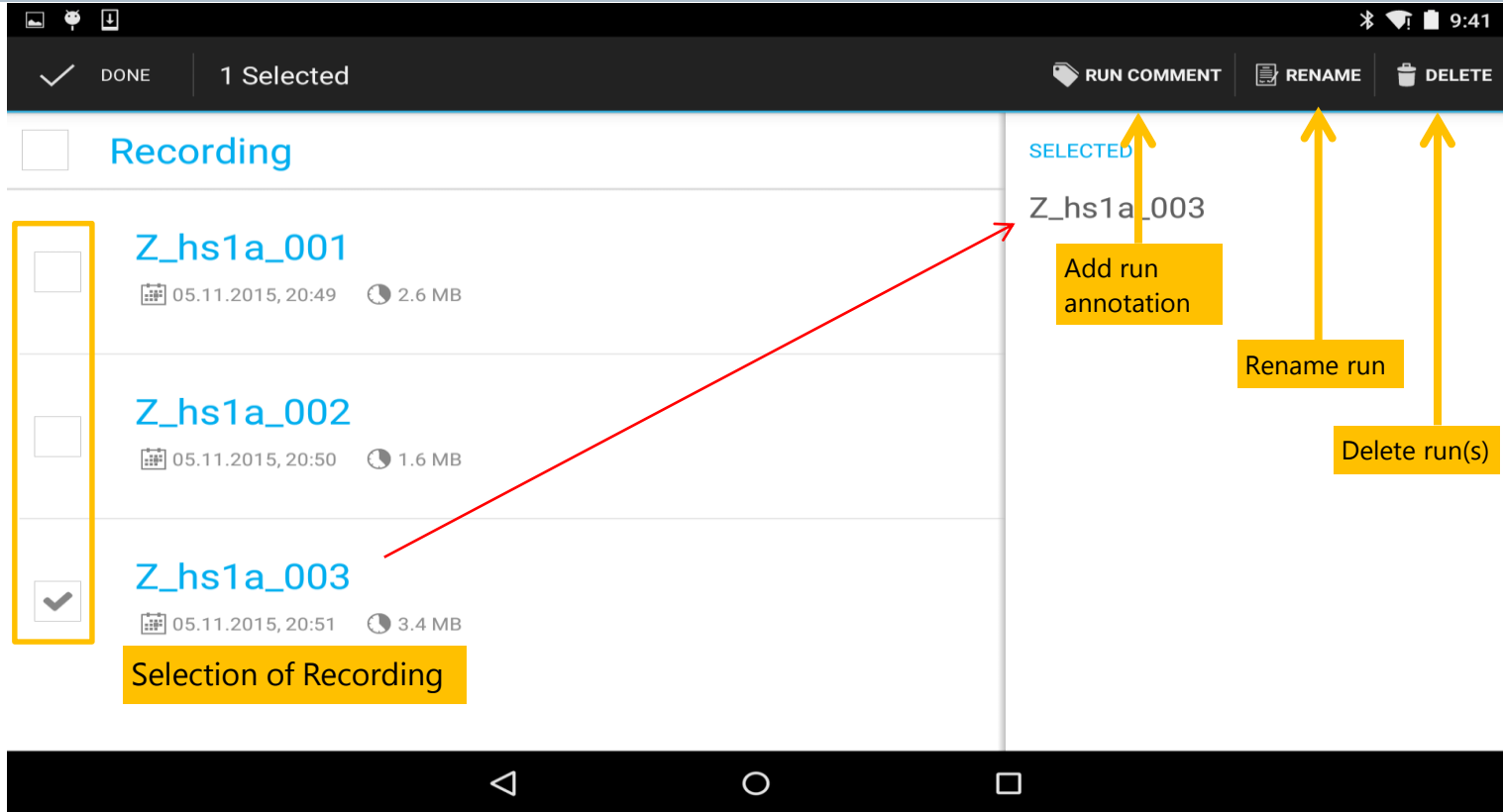
1. Start in MEASURE tab.  
2. Select a template  
3. Tap on RECORDINGS tab.

# Managing Recordings

The screenshot shows the Siemens mobile application interface. At the top, there is a navigation bar with a home icon, a 'MEASURE' tab, and a 'RECORDINGS' tab. A yellow callout box with the text 'Tap on Edit' points to the 'EDIT' button, which is circled in yellow. Below the navigation bar, there is a list of recordings. Each recording entry includes a waveform icon, a title (e.g., 'Z\_hs1a\_001'), a checkmark, a date and time (e.g., '05.11.2015, 20:49'), and a file size (e.g., '2.6 MB'). To the right of each entry is an 'Analysis' button with a play icon. A large yellow callout box with the text 'All Recordings for template chosen in previous page are listed' is overlaid on the recording list. At the bottom of the screen, there is a black navigation bar with three icons: a back arrow, a circle, and a square.

Recording ID	Date and Time	File Size	Action
Z_hs1a_001	05.11.2015, 20:49	2.6 MB	Analysis
Z_hs1a_002	05.11.2015, 20:50	1.6 MB	
Z_hs1a_003	05.11.2015, 20:51	3.4 MB	Analysis

# Managing Recordings



# Accessing Software and Firmware Version Info

The screenshot shows the Siemens software interface. At the top, there is a navigation bar with 'MEASURE' and 'RECORDINGS' tabs. Below this, a status bar indicates 'connected to LMS-SCADAS-XS-2AFC'. A list of templates is displayed, with 'Z\_hs1a' selected. A context menu is open over the 'Z\_hs1a' template, showing options: 'XS info', 'Support', 'Connect To', 'Start Mode', 'Labeling', and 'Select Views'. A red arrow points to the 'Z\_hs1a' template, and a green circle highlights the three-dot menu button. A blue circle highlights the 'XS info' and 'Support' options in the menu.

1. Select a template

2. Tap on 3-dot button.

3. Tap on "XS Info" for template info or on "Support" for SmartScope version

# XS Info --Template Information

The screenshot displays the 'XS info' application interface. At the top, there is a navigation bar with a back arrow and the title 'XS info'. Below this, the 'LMS SCADAS XS' section is highlighted with a red circle, showing 'Firmware 3.2'. To the right, the 'XS Firmware Version' is highlighted in a yellow box, with 'FPGA Version 37' and 'Autonomy 90 % [ -- ]' listed below it. The 'RECORDER STORAGE' section shows 'Capacity 29.5 GB', 'Free Space 29.5 GB', and 'Used Space 7.7 MB'. The 'CONFIGURATION' section shows 'Name Z\_hs1a' and 'Written by SmartScope (3.0.0.32)', with the latter highlighted in a red circle. A yellow box contains the text: 'Info on Application that created this particular template. Does NOT indicate current SmartScope version!'. The bottom of the screen shows the Android navigation bar.

XS info

LMS SCADAS XS  
Firmware 3.2

XS Firmware Version  
FPGA Version 37  
Autonomy 90 % [ -- ]

RECORDER STORAGE  
Capacity 29.5 GB  
Free Space 29.5 GB  
Used Space 7.7 MB  
Remaining Measurement Time ---

CONFIGURATION  
Name Z\_hs1a  
Written by SmartScope (3.0.0.32)

Info on Application that created this particular template. Does NOT indicate current SmartScope version!

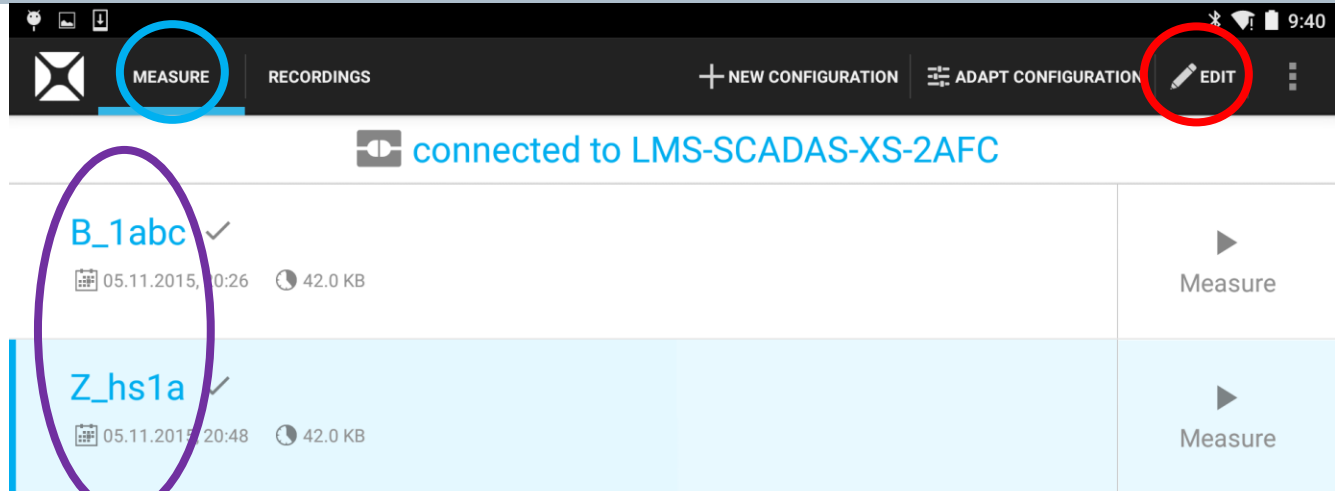
# Support Info

The screenshot shows the Siemens SmartScope mobile application interface. At the top, there is a navigation bar with a camera icon, a 'MEASURE' tab, and a 'RECORDINGS' tab. To the right of the tabs are buttons for '+ NEW CONFIGURATION', 'ADAPT CONFIGURATION', and 'EDIT'. The status bar at the top right shows Bluetooth, Wi-Fi, and battery icons, along with the time 11:31. Below the navigation bar, a status bar indicates 'connected to LMS-SCADAS-XS-2AFC'. The main content area shows a list of items, with 'B\_1abc' and 'Z\_hs1a' visible. A 'Support Info' dialog box is overlaid on the screen, displaying the following information:

Version :	3.0.0.32
Sold To :	1

A yellow callout box highlights the version number '3.0.0.32' with the text 'Current SmartScope version'. At the bottom of the dialog box, there is a 'Cancel' button with a close icon.

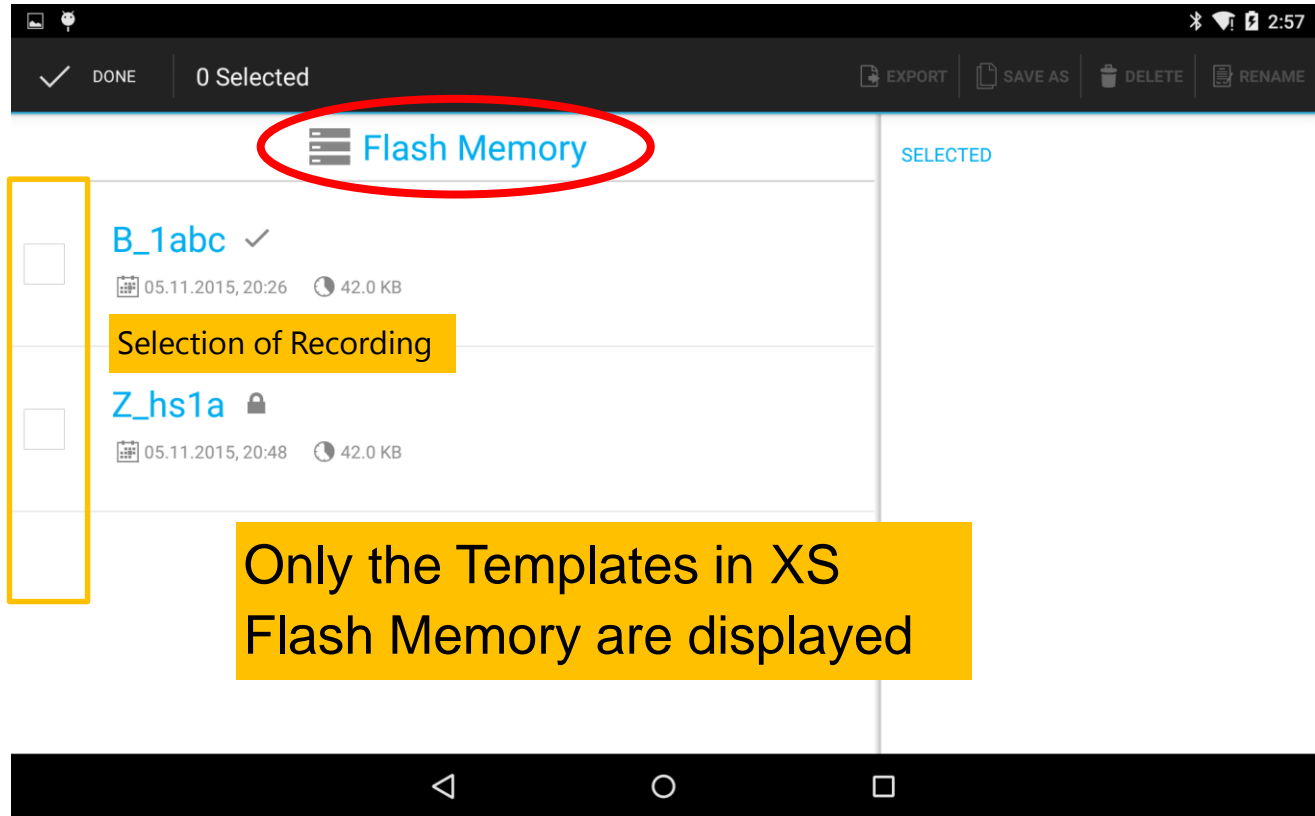
# Managing Templates on XS Flash Memory and SD card



1. In MEASURE tab
2. Only Templates shown here
3. Tap on EDIT

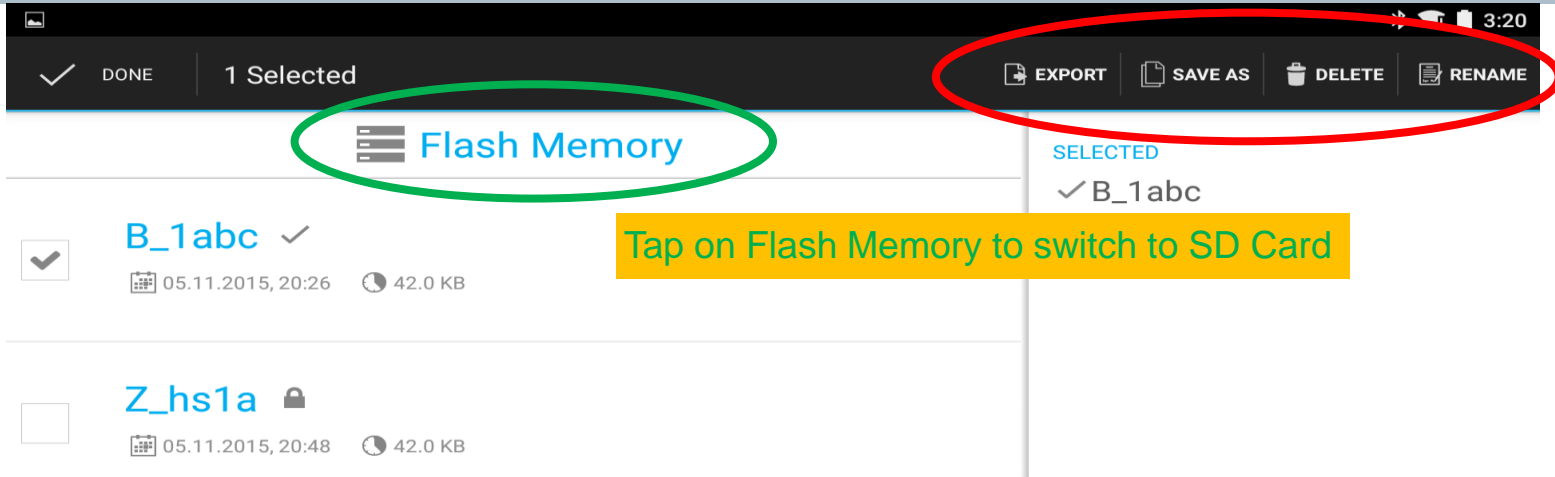
Note template Z\_hs1a is currently selected.

# Managing Templates on XS Flash Memory and SD card



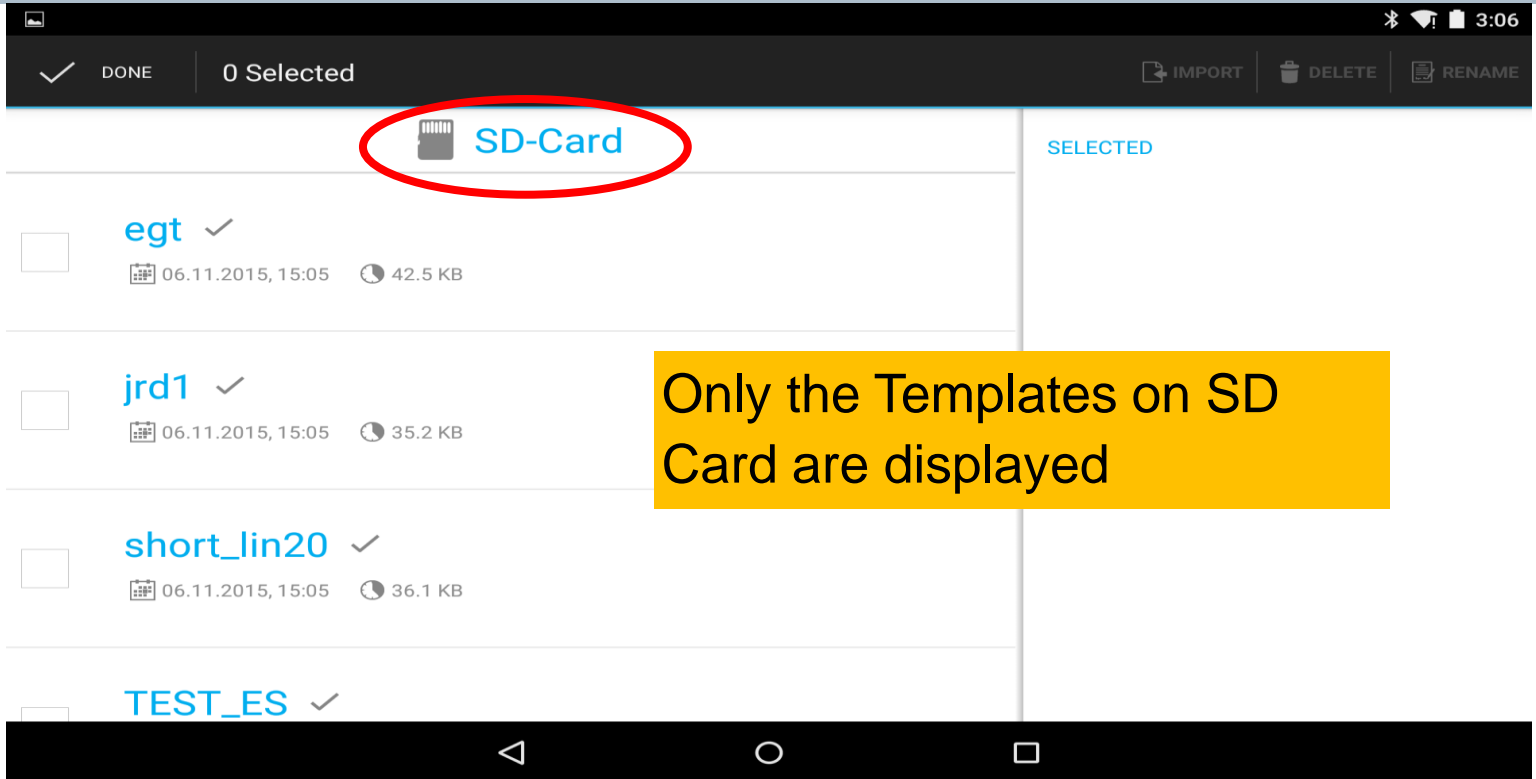


# Managing Templates on XS Flash Memory and SD card



- You have Options to Export, Save as, Delete and Rename the chosen template (if the checked box does not belong to currently selected template i.e. Z\_hs1a: refer to page 47).
- If the checked box belongs to currently selected template, only Export and Save as are possible.
- If multiple templates are chosen, then only Export and Delete options are available. Export option transfers template(s) to SD card.
- If multiple templates are chosen, AND one of them is the currently selected template, then only Export option is possible

# Managing Templates on XS Flash Memory and SD card



## Managing Templates on XS Flash Memory and SD card

✓ DONE 3 Selected

IMPORT DELETE RENAME

SD-Card

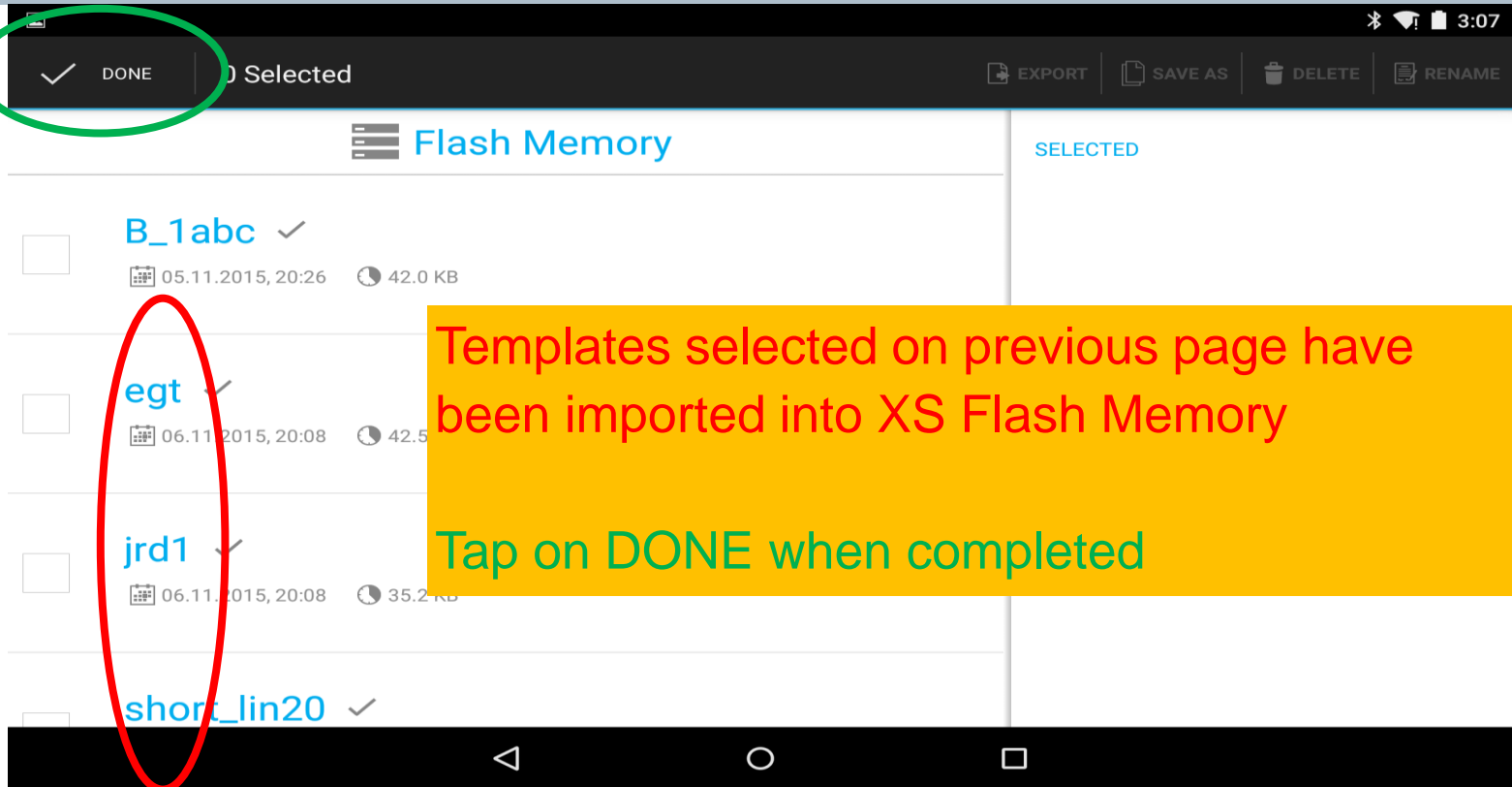
SELECTED

- ✓ egt
- ✓ jrd1
- ✓ short\_lin20

Selected template can be Imported into XS flash memory, Deleted, or Renamed. For multiple selections, renaming is not an option (greyed out).

Click on Import and Tap on SD-Card to switch back to Flash Memory

# Managing Templates on XS Flash Memory and SD card



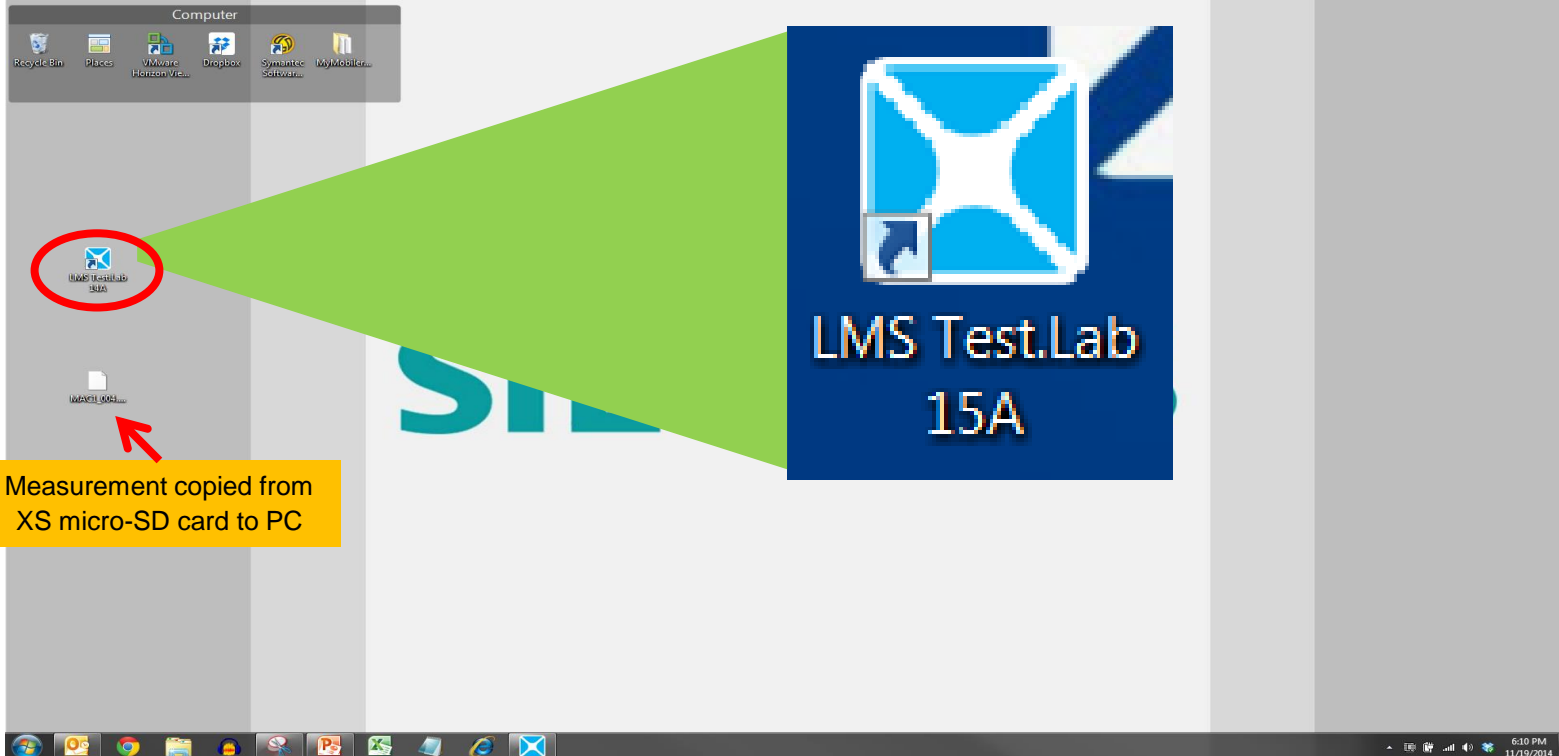
## Importing time history data

In order to import the raw time-histories for further processing, we will use LMS Test.Lab Desktop:

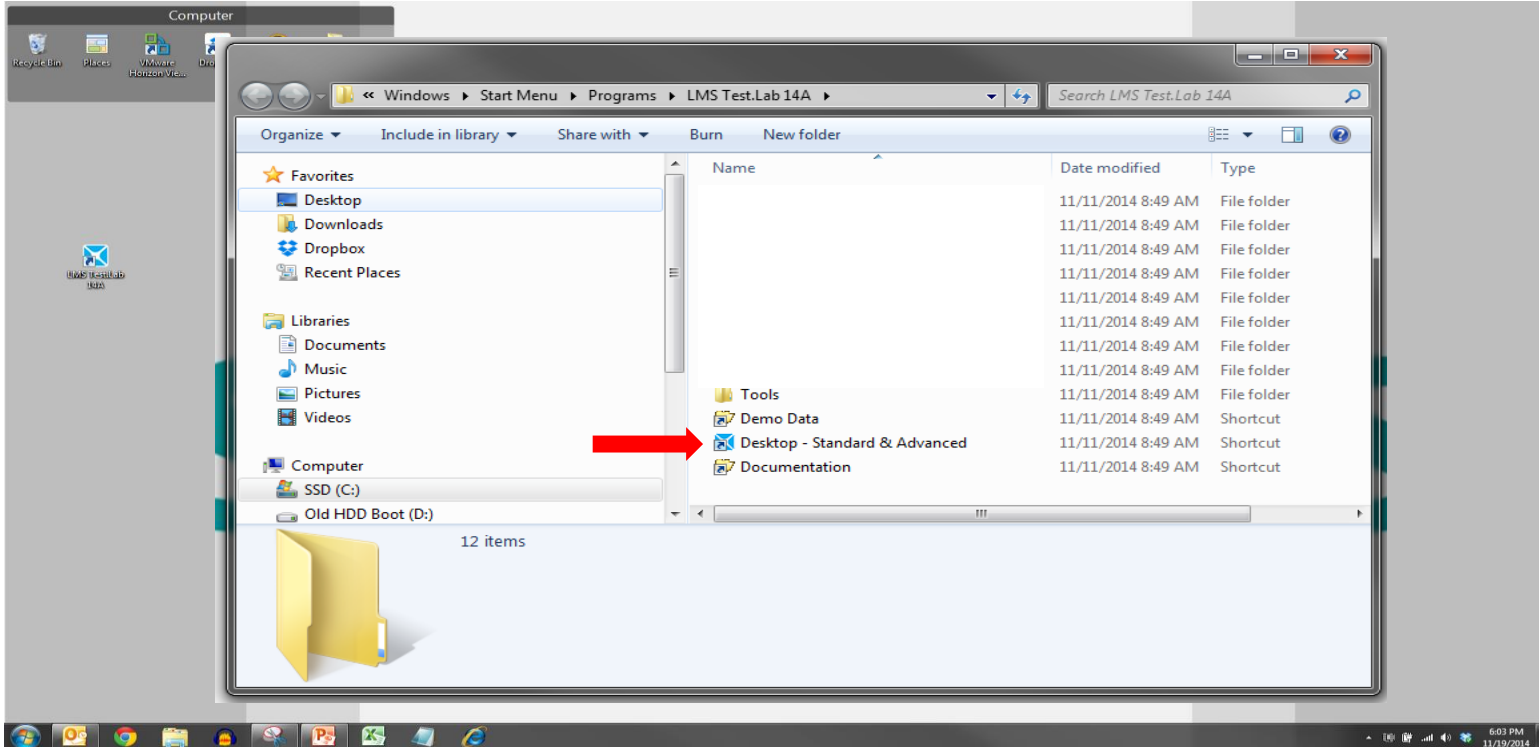
1. Remove micro-SD card from SCADAS XS
2. Insert micro-SD card into SD Card reader (provided)
3. Insert SD card reader into PC, copy or move files to PC
4. Launch LMS Test.Lab Desktop
5. Import files to active project (translates files into LMS “LDSF” file type)
6. Export channels as Universal, Matlab, SDF, WAV, etc.

Steps 4-6 are outlined in the following pages

# Open LMS Test.Lab Applications Folder



# Launch LMS Test.Lab Desktop



# Add-in Required

The screenshot shows the LMS Test.Lab Desktop Advanced interface. The 'Tools' menu is open, and the 'Add-ins...' option is selected. The 'Add-ins' dialog box is displayed, showing a list of available add-ins. The 'Standalone Recording' add-in is checked. A red arrow points from the 'Tools' menu to the 'Add-ins...' option, and another red arrow points from the 'Add-ins' dialog box to the 'Standalone Recording' option.

**Add-ins available:**

- PolyMAX Modal Analysis Lite
- PolyMAX Plus Modal Analysis
- PolyMAX Plus Modal Analysis Lite
- Principal Component Analysis
- Rigid Body Calculator
- Run Data Averaging & Comparison Organizer
- Signature Data Post-Processing
- Signature Throughput Processing
- Sound Diagnosis
- Sound Intensity Analysis
- Sound Quality Metrics
- Standalone Recording
- Test Data Management
- Time Data Editor – Advanced
- Time Data Editor – Standard
- Time Data Extraction
- Time Data Selection
- Time Domain TPA
- Time Signal Calculator
- Time-Variant Frequency Analysis
- TPA Component Editing
- TPA Synthesis
- Transfer Path Analysis
- User 1

Standalone Recording  
This add-in will allow you to import data that was acquired by a standalone measurement with a recorder.  
The add-in is part of the desktop application, no extra license is required.

Tools > Add-Ins > Standalone Recording

This Add-in will be loaded automatically every time Test.Lab Desktop is launched



# Importing time history data

The screenshot shows the LMS Test.Lab Desktop Advanced interface. The Navigator pane on the left displays the file system structure, with 'My Computer' selected. A red arrow labeled '1' points to 'My Computer'. Under 'My Computer', the 'C:' drive is expanded, and the 'Desktop' folder is selected, indicated by a red arrow labeled '2'. The center pane shows the contents of the Desktop, with the 'MAC1\_004' folder highlighted. A red arrow labeled '3' points to this folder. A context menu is open over the 'MAC1\_004' folder, and the 'Import into Active Project' option is selected, indicated by a green arrow labeled '4'. The right pane shows a preview of the selected file, 'MAC1\_004.xtrp'.

1. Drill into “My Computer” to locate data. In this instance, file is in the computer’s desktop.
2. Highlight folder which contains data, files are shown in center pane (MAC1\_004.xtrp)
3. Right-click on “xtrp” file in center pane
4. Select “Import into Active Project”

**How to display data?**  
[Learn more...](#)

Documentation Navigator LMS Test.Lab NUM

# Importing time history data

The screenshot shows the LMS Test.Lab Desktop Advanced software interface. The Navigator pane on the left displays a tree view of the project structure. A red arrow labeled '5' points to the 'MAC1\_004' folder under 'Section1'. The center pane displays a table of channels with a green box around the first four rows and a green arrow labeled '6' pointing to the table.

Name	name
1:tr1:+X	1:tr1:+X
2:tr1:+Y	2:tr1:+Y
3:tr1	3:tr1
4:left:righty	4:left:righty

4 Item(s) in list

NUM

5. Recording now appears in Active Project as run. Drill into folder and highlight blue LDSF icon

6. Channels appear in center pane

**LDSF files are now ready for processing in LMS Test.Lab.**

7. Right-click on channels in center pane and export to other formats such as Universal, Matlab, SDF, WAV, etc.