DIGITAL INDUSTRIES SOFTWARE

Simcenter Testlab Control App

Simcenter/SM-SCR.01/2406/20240509

Product Information Sheet

Summary

The Simcenter Testlab Control App in combination with the Simcenter SCADAS Recorder is particularly suited for challenging test applications, where using PC-based data acquisition is unsafe or impractical. Simcenter Testlab Control App is a wireless, icon-based, touchscreen application that runs on a 7” and an 8.1” Android tablet. It is compact, smart, and ideal for mobile usage. Communication happens via Bluetooth or via Wi-Fi (embedded in the Simcenter SCADAS Recorder or via an external Router, hooked up to the UTP port of the Simcenter SCADAS Recorder).

You can cycle through test setups, start and stop measurements, monitor data in real-time and validate measurements on the spot, avoiding lengthy test reruns.

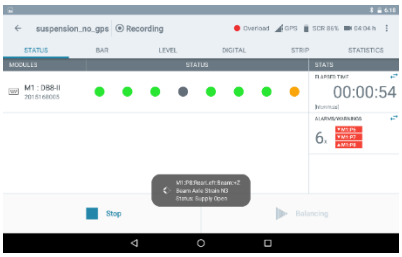
BENEFITS

- A one-person operation Wireless communication: no cables or wires
- Remote measurement control: start, stop and zeroing
- Icon-based graphics on a high-resolution 8.1” display: easy to see while driving
- Direct feedback: alarm notifications, real-time digital displays and full-color measurement status

FEATURES

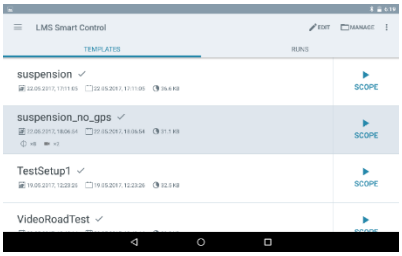
- Wireless communication via Bluetooth® or Wi-Fi (Simcenter SCADAS-internal Wi-Fi or external Wi-Fi Router)
- Selection of measurement setup from pre-configured test templates
- Manual measurement control using start-stop buttons or automated multi-run measurements
- Online data viewing and measurement control
- Track side validation right after recording using compressed time overview and statistics per channel
- Annotation of recordings with user comment

Instant data validation
During the data recording process, Simcenter Testlab Control App provides instant graphical and tabular feedback per channel. The Simcenter SCADAS Universal Durability Module’s on-board digital signal processor stores a condensed overview of time series and overall statistics while real-time data is being collected. This allows data to be checked without having to wait for it to be uploaded.

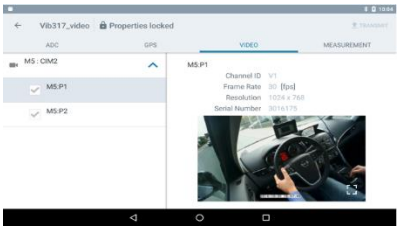


Configuration selection and Setup

- Selection of pre-defined configuration, prepared with Simcenter Testlab Neo, Simcenter Testlab Time Data Acquisition, Simcenter Testlab Signature or Simcenter Testxpress
- Limited set of parameters can still be modified, e.g. start/stop trigger settings, Input Range, Sensitivity, Unit and offset strategy



- Channel identification based on User Channel ID or Point
- Verification of offset and sensitivity via dedicated Balance / Headroom check and Shunt check
- Balancing of channels



- Video image alignment for cameras hooked up to the Simcenter SCADAS CIM2 module or alternatively the camera on the tablet device

Acquisition monitoring and Control

- Critical information is always visible: measured time, overload info and speed or rpm
- Status view for quick monitoring of sensor status using LED-type representation for channels and modules: detection of overload, sensor supply issues, Wheel force communication problems, …
- Base view for fast measurement control and relevant feedback on main sensors (including GPS speed and RPM)
- Digital view for monitoring instantaneous values of any channel, including analog channels, GPS, CAN and Wheel Force channels – the number of displays and the channel selection is freely configurable
- Strip chart view for on-line time signal validation, including RPM, GPS and CAN channels – up to 6 arbitrary channels visible in parallel
- Bar chart view for amplitude indication of multiple channels
- Level view showing the mean value of some arbitrary channels relative to the predefined alarm and warning limit
- Statistical view displaying statistical information per channel:
- Overall and instantaneous values
- Min, Max, Mean, RMS, Standard Deviation, Range, Headroom %, Crest and Drift
- User-configurable anomaly checks for over/under-range, headroom, spikes and drift

- In any view, extra channel information is displayed by simply clicking on the channel
- Support of templates which include acquisition of Flexray raw data prepared with Simcenter Testlab Time Data Acquisition

On-line warnings & alarms

Feedback to the driver if one or more channels go outside user-defined limits (speed, rpm, temperature, acceleration…)

- Audio and/or visual feedback, independent of selected view and definable on a channel-base
- Problematic channel is identified (name, value and type of issue)
- Levels for upper and lower warnings and alarms
- Dedicated info shown in Base and Level view

Track side validation

- Post-run shortcut view for data validation and annotation, audio replay or starting a new measurement based on the same or alternative configuration file.
- Strip chart view for off-line time signal validation, including analog channels, GPS speed, CAN data and Wheel Force channels. Zoom-in on overview data.

- Statistics overview of any channel
- Min, Max, Mean, RMS, Standard Deviation, Range, Headroom %, Crest and Drift
- User-configurable anomaly checks for over/under-range, headroom, spikes and drift
- Hardware check info on issues encountered during a measurement: overload, open cable, shorted cable, digital communication problem…
- Annotation of Runs + optionally renaming

Tools

- Status info on remaining battery time (for Tablet and Simcenter SCADAS Recorder), remaining measurement time and remaining disk space on the Compact Flash card.
- Configurability of views
- Start mode definition (none, scope or record)

Product status

- Available on Android 7 and higher with recommended Android tablet
  - Samsung Tab Active3 running Android 13
  - Huawei MediaPad M3 running Android 7
  - Samsung Tab S5e running Android 12
- Available license configuration: Node-locked only