myMOBILE
Android Version

User's Manual

Version 5/2016

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Introduction

myMOBILE is complex professional HMI/SCADA system for mobile devices.

myMOBILE application offers industrial control for those how are busy and need to be in touch with their company all over the world. There are plenty of enterprises that are independent on desktops or servers. Does it sound familiar? If yes, myMOBILE is just for you. Use your smart devices to reduce costs and save your time.

myMOBILE helps to supervise and control industrial processes such as your production line, factory or any industrial appliance. myMOBILE is very popular thanks to its flexibility and simplicity.

myMOBILE can show your production in a form of scalable graphics, charts, trends, alarms or even reports. myMOBILE can connect directly to your PLC/DCS Controller or can act as a thick client connecting over a myPRO server. Project is created in myDESIGNER a unified development environment and then loaded into myMOBILE application running on your Android device.

myMOBILE is optimised for mobile devices in every aspect. Professional visualization based on scalable vector graphics enables to zoom to any details of your technology. Small memory footprint and integrated communication drivers allows for trouble free operation in any industry.

All communication drivers are embedded, so all you need is your smart device, WiFi network or Internet connection.

For remote connections, myMOBILE operates over secure VPN link to ensure maximum security for your technology.

Supported communication protocols:
- Siemens S7
- EtherNet/IP
- Modbus TCP
- OPC Unified Automation (OPC UA)
- Melsec
- Toyopuc

General Information

Purpose of This Manual
This manual is a reference guide for **myMOBILE for Android devices** which:

- explains how to register your device
- operate mySCADA Application

Who Should Use This Manual
This manual is intended for end user. If you need to create project for your device please read "Getting Started" manual for myDESIGNER.

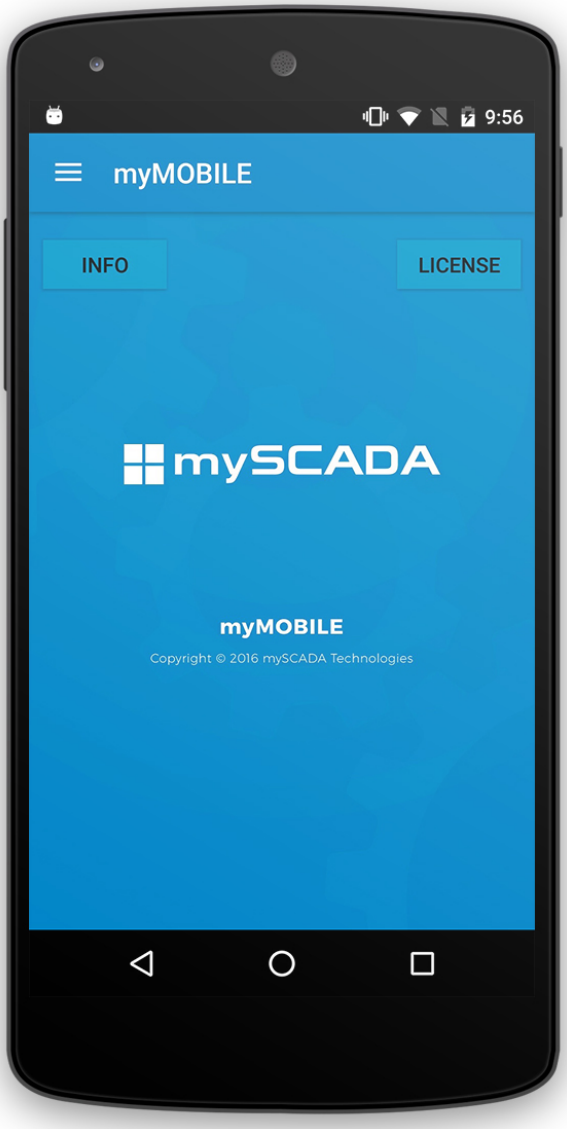
Getting help
For technical support, please, go to our web page
http://www.myscada.org and select section SUPPORT.

You can also use e-mail support@myscada.org. If using e-mail, please, write product name into subject. Also provide as much detail as possible so we can best assist you.[1]

[1] The examples and diagrams in this manual are included solely for illustrative purposes. In no event will mySCADA technologies. be responsible or liable for indirect or consequential damages resulting from the use or application of this equipment. Reproduction of the contents of this manual, in whole or in part, without written permission of mySCADA Technologies, is prohibited. mySCADA Technologies reserves the right to change this manual at any time without notification.

First Screen – Help

When is mySCADA loaded, you are navigated to the main screen called Help.



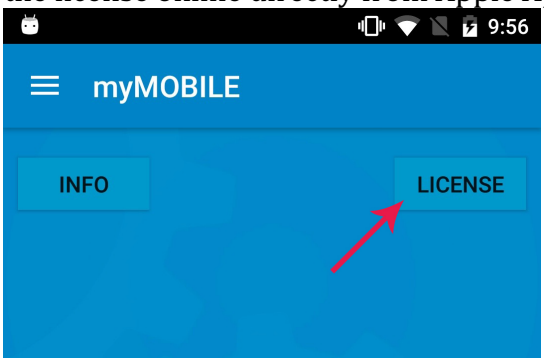
On this page, you can access basic information about your application. To get started, you can press the *Info* icon to get basic information about your application. Pressing the *Manual* icon, you can access the User Manual.

Free Usage

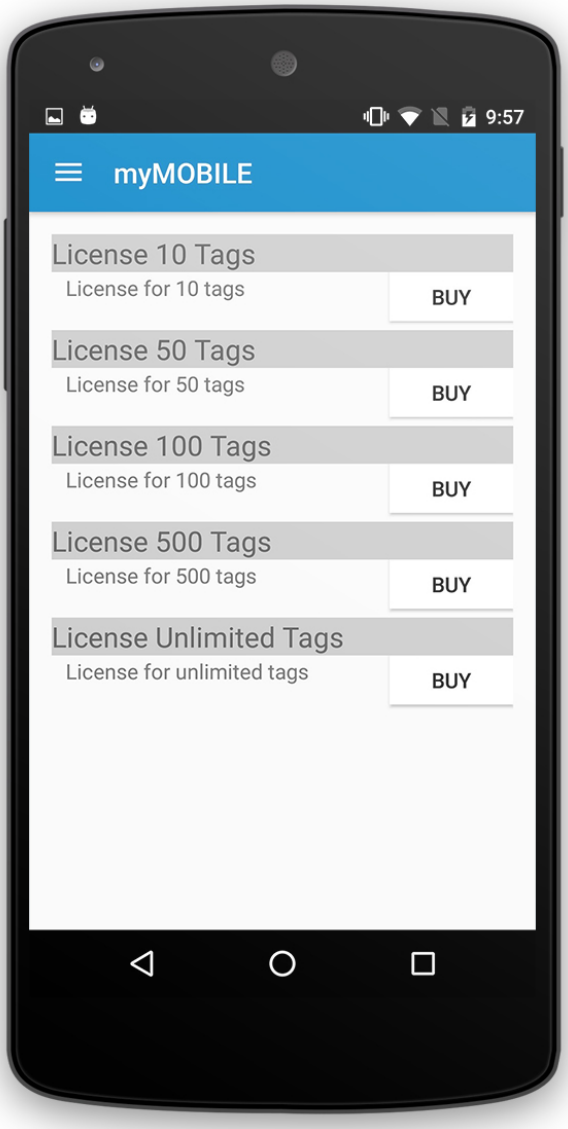
Application is FREE for non-commercial use. In this version you can freely use this application for home use. Application is limited to 5 tags. If you need more, you must purchase a commercial license. In this case, press the *License* button.

Commercial Usage – Buying a License

To use mySCADA on commercial base, you must purchase a license. To purchase a license buy the license online directly from Apple App Store. From Home view, press the License button.



You will be navigated to new screen:

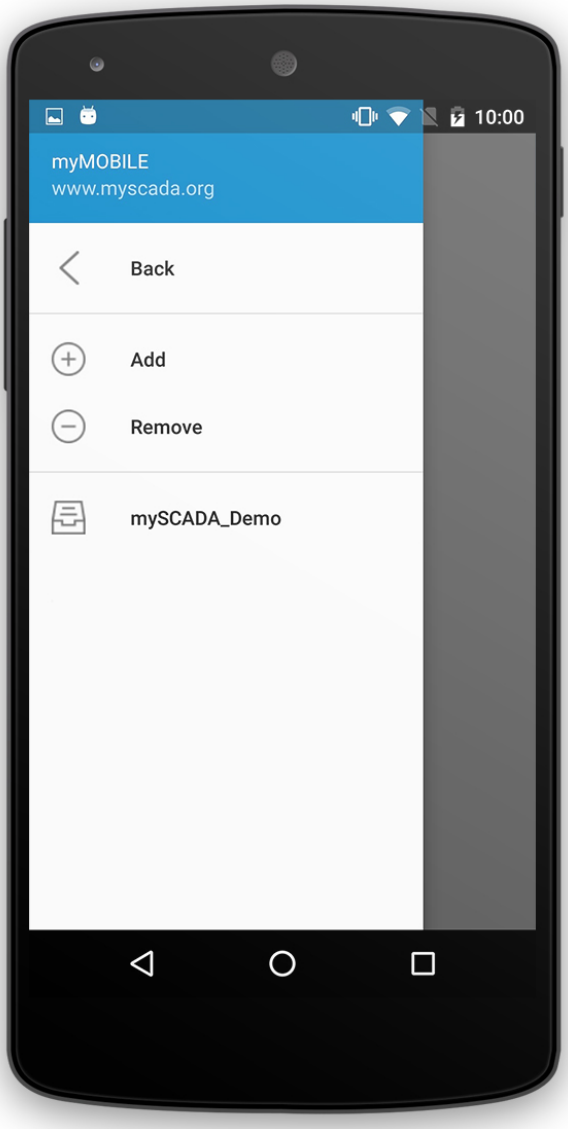


Licensing info: Tag is a data-point read from the PLC. The number or tags you buy adds to your total count. For example, if you buy 50 tags, you will have total = 5 free tags +50 = 55 tags. You can check number of purchased tags in Settings page.

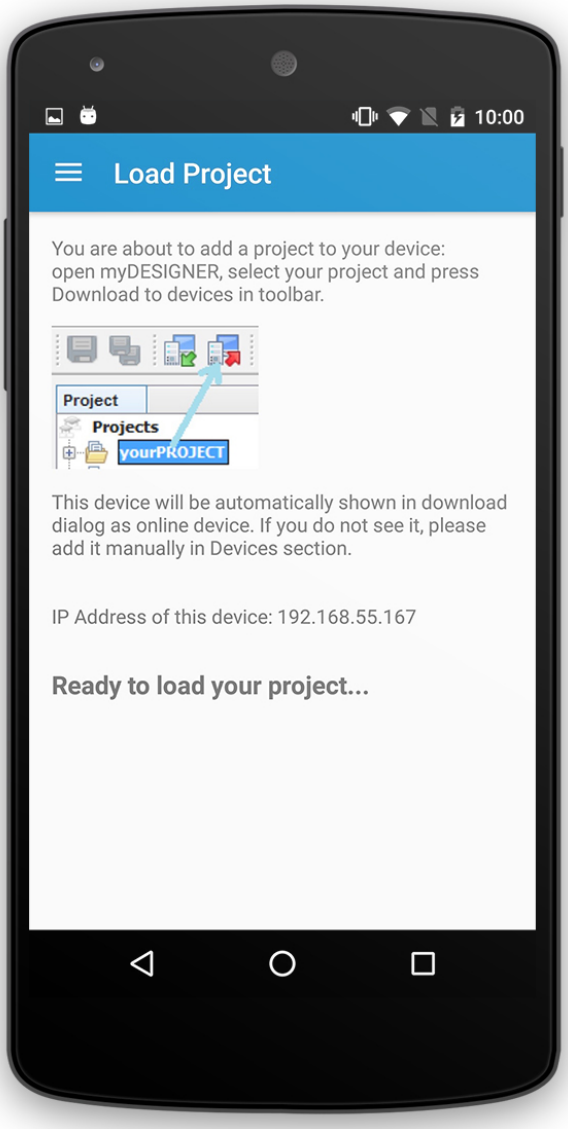
Loading Project

To be able to use myMOBILE application, you must load your project into the device. If you do not have your project yet, you should download a myPROJECT Designer from our www pages. Once you create a project in myPROJECT Designer, you can download it to the device:

In Main menu, select **Project** and then click on a **+ Add** icon.



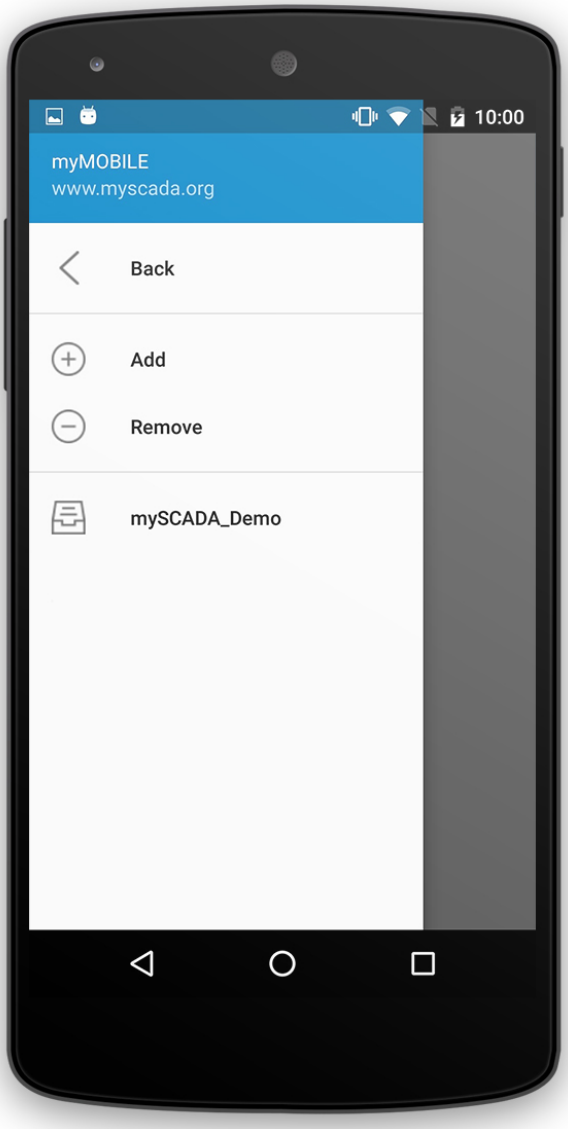
New screen for project loading is shown:



When this screen is visible, you can download prepared project to your device. Once the project is in device, it is automatically loaded and you can start to use it right away.

Switching Projects

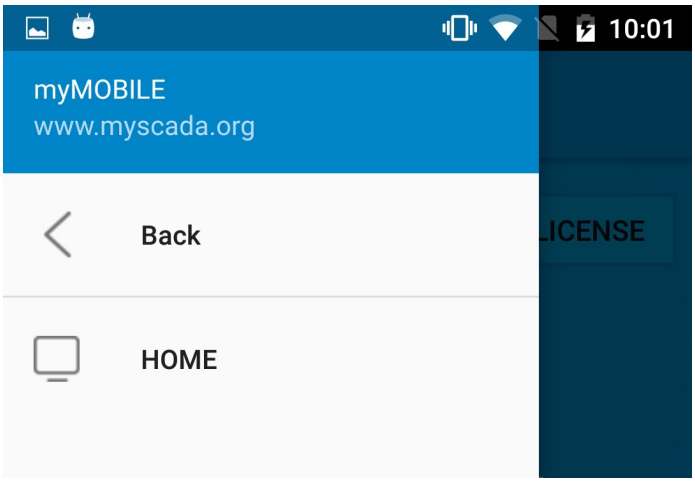
Your device can hold multiple projects. If you download a new project, it is automatically saved under its name. To switch among projects go to main menu and click on Project, list of available projects is shown. Select the desired project.



Showing Views

The possibilities are virtually endless when choosing how you would like to represent the overall design of your system. Simple page elements are incorporated into the complete design and depending on the amount of effort put into the fabrication of the representation, a very detailed system imitation can be achieved. Such detailed visualization screens can be easily created by a powerful sotware tool ***myDESIGNER*** which is available for free download at www.myscada.org.

Views represent your controlled technology. Pressing the View icon shows all available views. Click on a desired view to show it.



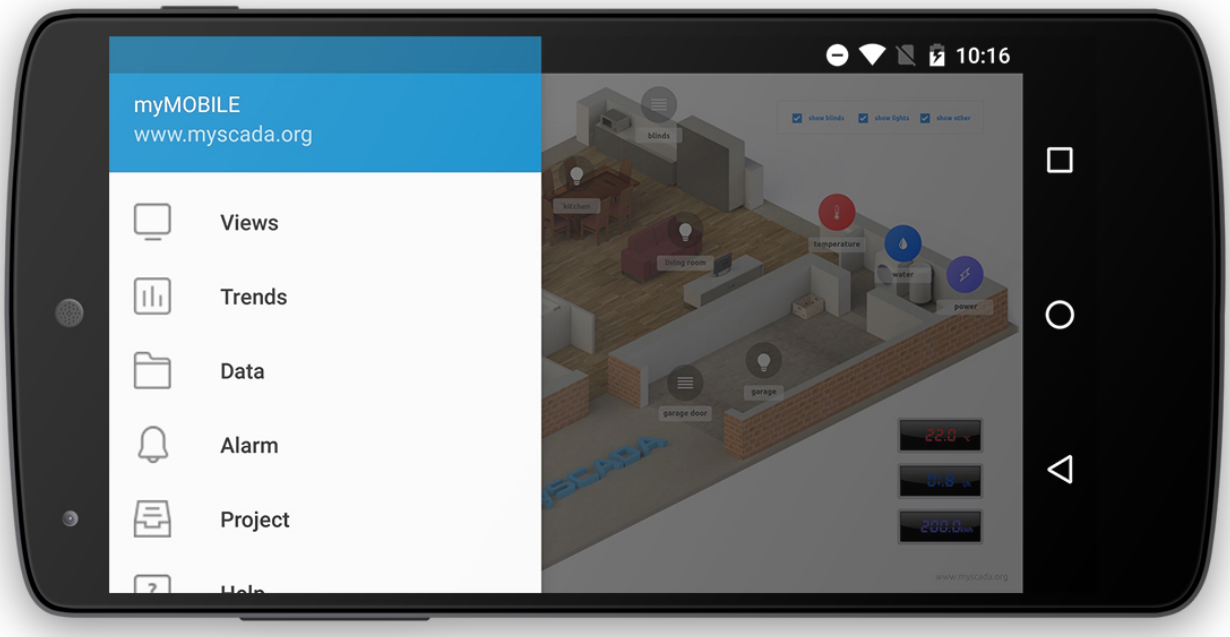
View Options:

In settings you can specify if you want to show your views in regular view or in full screen view:

Figure 1 Regular view with controls

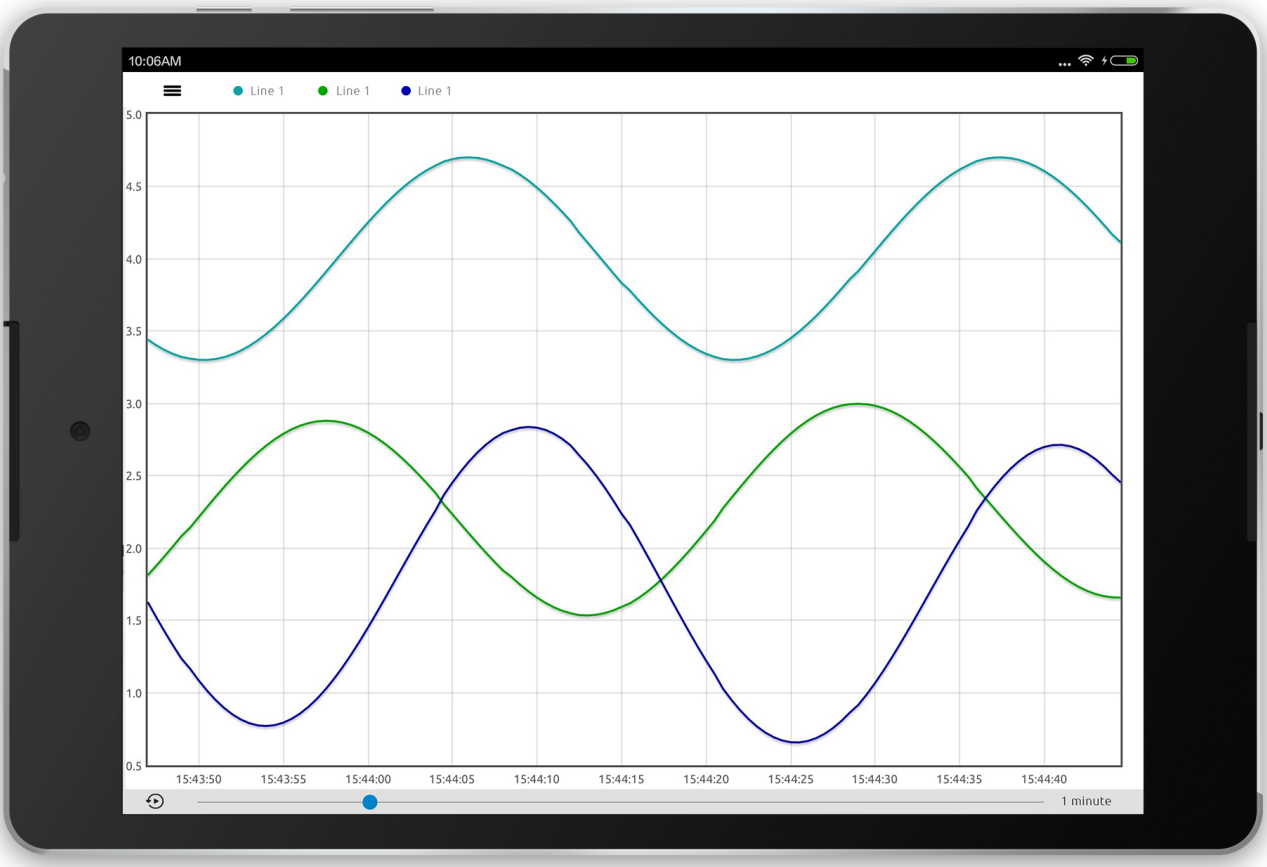
Figure 2 Full-screen mode, your view is shown over whole screen

When in full screen mode, use right edge swipe to show main menu:



Advanced Trends

Visualization of trends can be vital when monitoring your system. Trends allow tag values to depict certain patterns that may be dangerous. For trend correct operation, the recording of current and previous values is needed. To enable historical data loading, please go to the settings page. The displayed data are loaded from the inner memory of your device. You can easily present your online or historical data in the form of a time trend. All defined trends can be found in menu Trends.



There are two possible ways how to visualize trends:

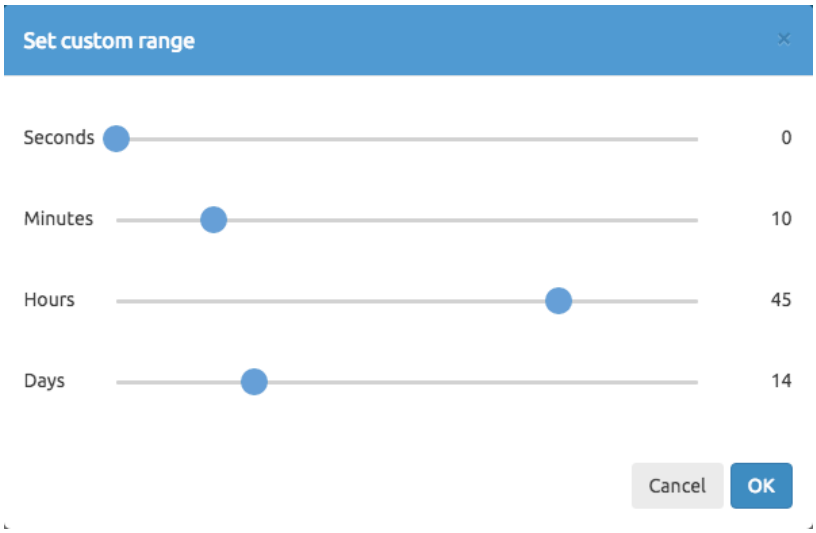
1. **Online** - data is shown starting from the current value
2. **History** - data is shown from a certain entered date

Online Mode:

Time range showed in a trend can be easily changed in the bar bellow the actual graph. Drag the slider to change the time range shown (from 1 minute up to 1 year)

Setting custom time interval:

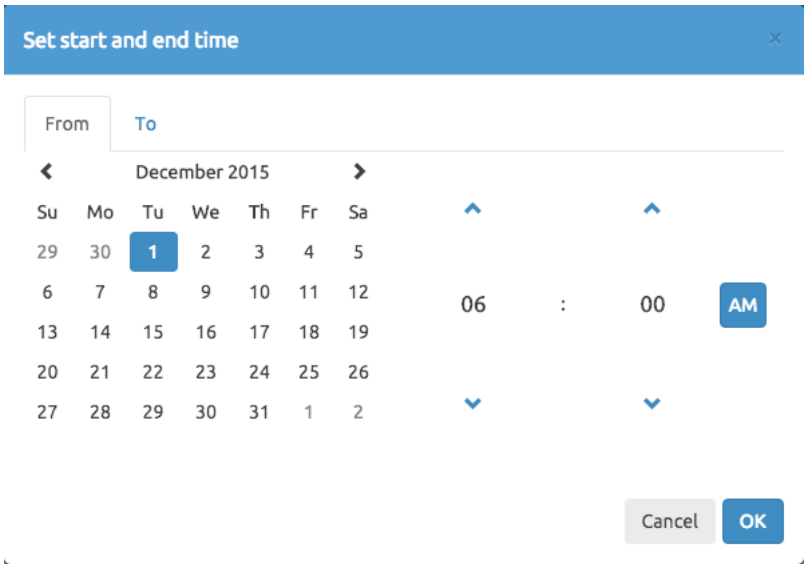
When you click on a time interval on the right, you will be presented with a dialog enabling you to set up custom time interval for viewing.



History Mode:

Switch to the history mode is done by clicking on the timer icon in the lower left corner.

In this mode, you can specify a date range in which data will be shown - click on a date to set:



By clicking on the left and right arrows, it is possible to change the date in accordance with an already set Time range. Clicking on the very left arrow will show first records available, clicking on the very right icon will show the latest records available. Again, by clicking on the time interval on the right, you will be presented a dialog enabling you to set up a custom viewing time interval.

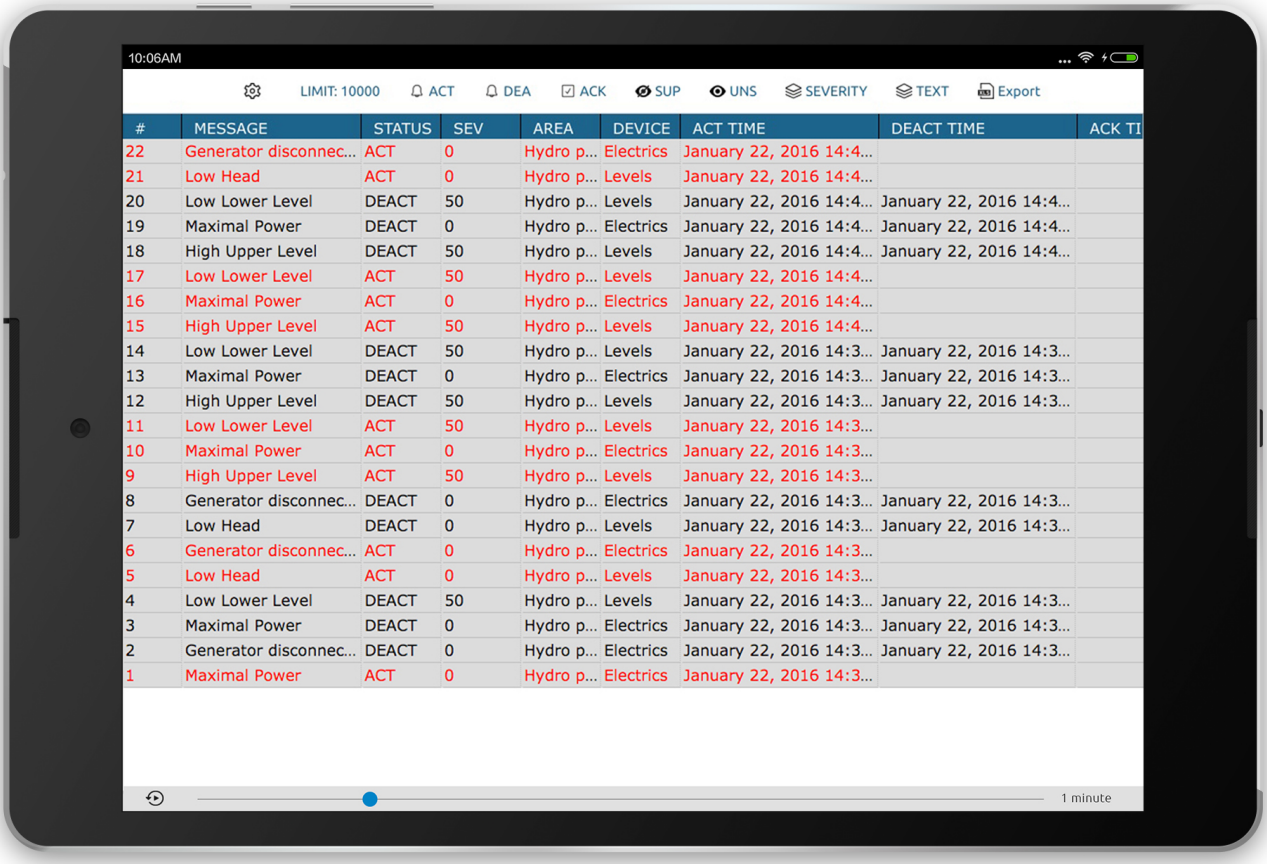
***TIP**: The maximum of 10 000 values can be shown in one trend at one time. If there is more than 10 000 values in a selected Time range, the system will ask you to reduce the current Time range.*

Alarms

A crucial part of monitoring your system is being notified immediately when something unusual occurs. A tag reaching an undesired status will trigger an alarm. The information regarding this dangerous and/or important status will be delivered immediately to the device for timely and appropriate actions to take place. An alarm can signal that a device or process has ceased operating within acceptable, predefined limits, or it can indicate breakdown, wear, or a process malfunction. Often, it is also important to have a record of alarms and whether they have been acknowledged.

Online alarms

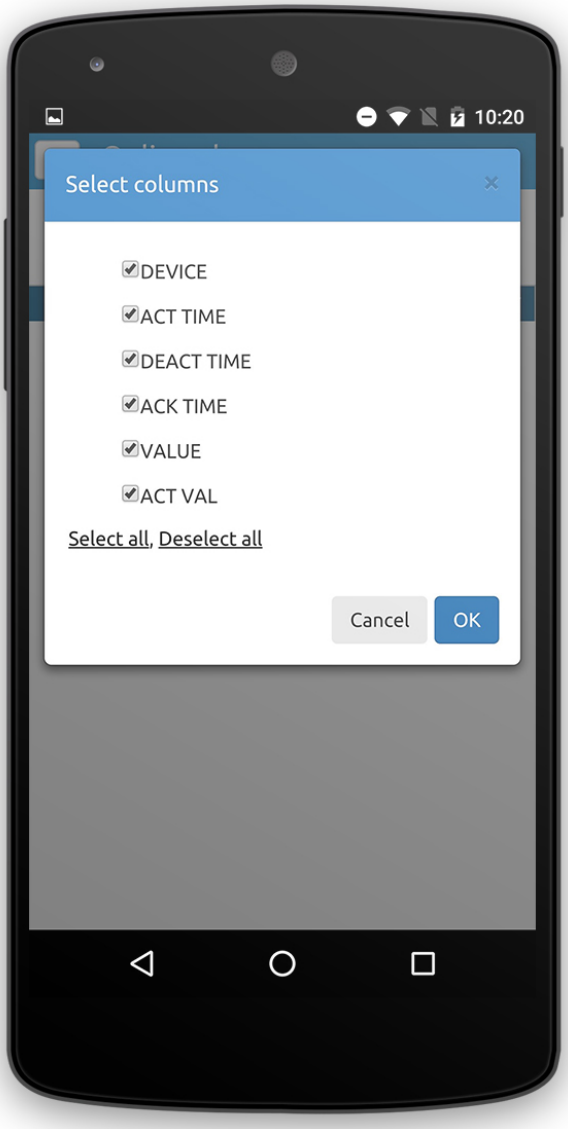
The alarm window allows the operator to perform a complete management of the technology alarms. The window allows you to visualize the alarms present in the technology or in a restricted area of the technology. An alarm window can display all the alarms of a technology or only a set of them, arranged by areas defined by the programmer. If necessary, the operator can select the desired area, by clicking on the filter button and filling the area name.



#	MESSAGE	STATUS	SEV	AREA	DEVICE	ACT TIME	DEACT TIME	ACK TI
22	Generator disconnec...	ACT	0	Hydro p...	Electrics	January 22, 2016 14:4...		
21	Low Head	ACT	0	Hydro p...	Levels	January 22, 2016 14:4...		
20	Low Lower Level	DEACT	50	Hydro p...	Levels	January 22, 2016 14:4...	January 22, 2016 14:4...	
19	Maximal Power	DEACT	0	Hydro p...	Electrics	January 22, 2016 14:4...	January 22, 2016 14:4...	
18	High Upper Level	DEACT	50	Hydro p...	Levels	January 22, 2016 14:4...	January 22, 2016 14:4...	
17	Low Lower Level	ACT	50	Hydro p...	Levels	January 22, 2016 14:4...		
16	Maximal Power	ACT	0	Hydro p...	Electrics	January 22, 2016 14:4...		
15	High Upper Level	ACT	50	Hydro p...	Levels	January 22, 2016 14:4...		
14	Low Lower Level	DEACT	50	Hydro p...	Levels	January 22, 2016 14:3...	January 22, 2016 14:3...	
13	Maximal Power	DEACT	0	Hydro p...	Electrics	January 22, 2016 14:3...	January 22, 2016 14:3...	
12	High Upper Level	DEACT	50	Hydro p...	Levels	January 22, 2016 14:3...	January 22, 2016 14:3...	
11	Low Lower Level	ACT	50	Hydro p...	Levels	January 22, 2016 14:3...		
10	Maximal Power	ACT	0	Hydro p...	Electrics	January 22, 2016 14:3...		
9	High Upper Level	ACT	50	Hydro p...	Levels	January 22, 2016 14:3...		
8	Generator disconnec...	DEACT	0	Hydro p...	Electrics	January 22, 2016 14:3...	January 22, 2016 14:3...	
7	Low Head	DEACT	0	Hydro p...	Levels	January 22, 2016 14:3...	January 22, 2016 14:3...	
6	Generator disconnec...	ACT	0	Hydro p...	Electrics	January 22, 2016 14:3...		
5	Low Head	ACT	0	Hydro p...	Levels	January 22, 2016 14:3...		
4	Low Lower Level	DEACT	50	Hydro p...	Levels	January 22, 2016 14:3...	January 22, 2016 14:3...	
3	Maximal Power	DEACT	0	Hydro p...	Electrics	January 22, 2016 14:3...	January 22, 2016 14:3...	
2	Generator disconnec...	DEACT	0	Hydro p...	Electrics	January 22, 2016 14:3...	January 22, 2016 14:3...	
1	Maximal Power	ACT	0	Hydro p...	Electrics	January 22, 2016 14:3...		

Setting View Options

You can control what columns will be visible in this window. To change settings, press the settings icon in a top left corner. You will be presented with dialog enabling you to change the visibility of every column:



Alarm Acknowledgement

The operator can acknowledge HMI alarms displayed in the alarm window. Acknowledging the alarms does not correct their causes, but indicates that the operator is aware of them.

Sorting and Filtering in run-time

By default, the alarm information in the alarm summary is firstly sorted by the date and time, then by severity and the area name.

This means that alarms are presented in a chronological order i.e. if two or more alarms have the same time and date, they will be presented in order of severity; if any alarms have the same time and date and the same severity, then they will be sorted by the area name

History of alarms

mySCADA engine automatically logs your alarms into history. Every alarm action is logged with all relevant data such as current time (with precision to 1 millisecond). You can browse through alarm history in Alarm History Window. Aside of direct data browsing, you can also filter your

data based on criteria. To enable logging on history of alarms, you must enable it in settings window.

Severity

▪ Alarms can range in severity from 0 (most severe) up to 4 byte unsigned integer value (least severe), to indicate different levels of importance. For example, a severity 10 alarm might warn that a tank is half full of liquid, while a severity 5 alarm indicates that the tank is about to overflow. Both alarms monitor the same tag but have different severity levels.

▪ When you set up alarm severity, you specify what the severity levels mean and what actions they will trigger. Severity determines the order in which alarms are displayed in an alarm banner.

Alarm Areas

The alarms can be grouped in different areas so that they can be displayed in the alarm window based on the area they belong to. This may be helpful to enable you to divide the alarms according to the different plant zones they come from.

Message

Alarm messages report information about alarms.

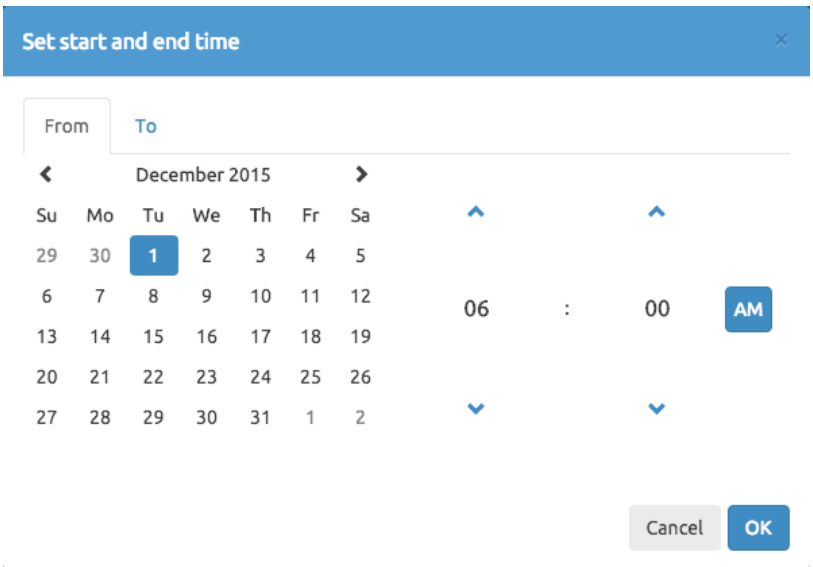
Device

You can define multiple alarms for a single device. In live alarm view or during a browsing of alarm history, you can filter your data based on device value.

Changing Date & Time

To change the date or intervals of shown results, use the bottom time toolbar.

You can specify the date range in which data will be shown - click on the date to set:



By clicking on the left and right arrows, it is possible to change the date in accordance with already set Time range. Clicking on the very left arrow will firstly show the records available, clicking on the very right icon will show the latest records available.

By clicking on the time interval on the right, you will be presented a dialog enabling you to set up a custom time interval for viewing.

***TIP**: The maximum number of shown rows is limited by the LIMIT button, located on the top bar. You can change this value any time during viewing the data*

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Data-Log Views

You can log eventually any data or information available in *mySCADA*. For the user convenience and easy access the data are grouped into so called "Data-Logs". You can think of data-logs as of similar data collections. It can be e.g. a set of temperatures read each second from the PLC, motor start-up voltage and the current logged each 100 milliseconds, run hours of process, operators' actions or computed production statistics.
Each data log can have defined multiple Data-Log Views. The data-Logs are thus viewed in a tabular form represented by one or multiple Data-Log Views. Data-Log Views are accessible from the main menu by clicking on "**...**" button.

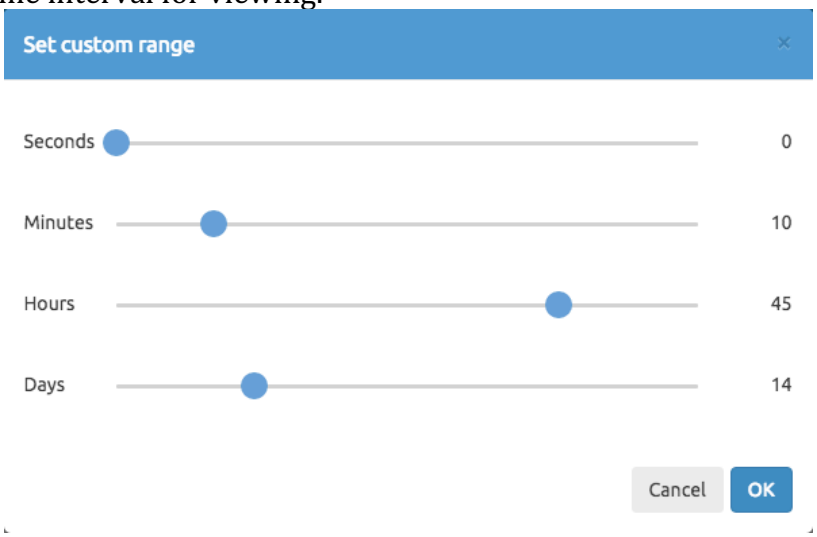
There are two possible ways how to operate Data-Log views:

1. **Online** - data is shown starting from the current value

2. **History** - data is shown from a certain entered date

Online Mode:
Time range showed in a data-log can be easily changed in the bar bellow the actual graph. Drag the slider to change the time range shown (from 1 minute up to 1 year)

Setting a custom time interval:
When you click on a time interval on the right, you will be presented with a dialog enabling you to set up custom time interval for viewing.



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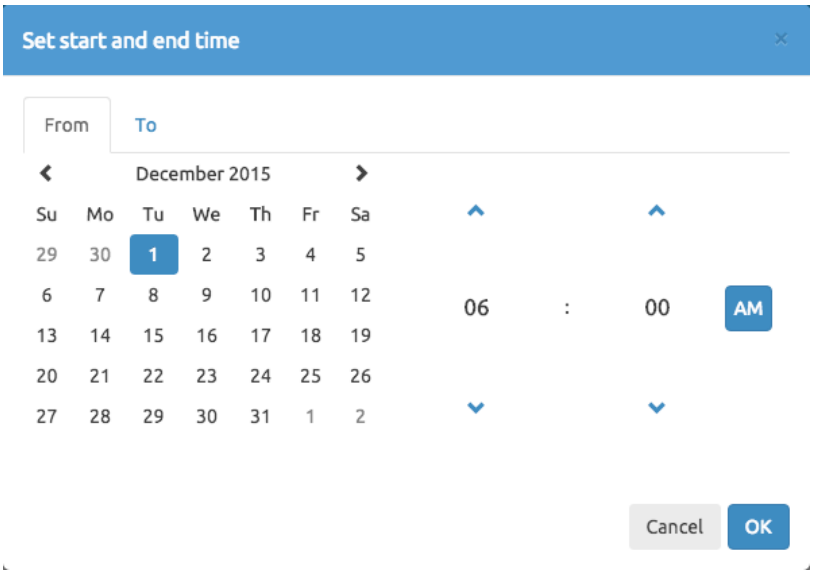
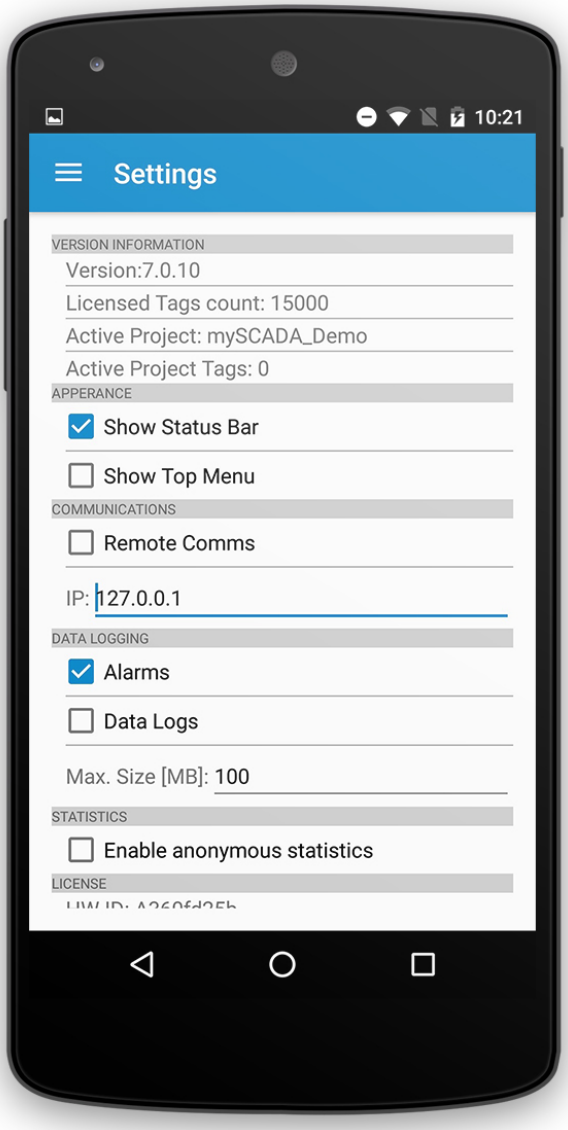


By clicking on the left and right arrows, it is possible to change the date in accordance with already set Time range. Clicking on a left most arrow will show first records available, clicking on a right most icon will show latest records available. Again by clicking on a time interval on the right, you will be presented with a dialog enabling you to set up custom time interval for viewing.
***TIP**: Maximum number of shown rows is limited by a LIMIT button located at the top bar. You can change this value any time during viewing a data.*

Settings View

In this view, you can change behavior of data reading, logging, visual appearance and other. To access settings, go to main menu and press settings:



Version information:
This section is showing actual version of your application. Also, you can see number of licensed tags.

Appearance:
You can choose if to show status bar and top menu.

Communications:
By default, all communications in myMOBILE App is done in device. This means runtime for communications with PLCs is embedded directly into the device. If you communicate with your PLC, your device is connected directly with this PLC. You can however used other mySCADA

Device (such as myPRO or myBOX) to use it as communication gateway. This way, your Android device is sending all communication requests to other mySCADA Device which is then communicating with your PLCs.

To use other mySCADA device as communication gateway:

1. enable Remote Comms
2. enter IP address of remote mySCADA device

Data Logging

If you enable data log or alarm options, historical data will be logged into internal database. If you want to use Historical Alarms or Data Logs you must enable data-logging.

Getting Help

If you have any questions or comments, please do not hesitate to contact us at support@myscada.org. We will be glad for any feedback!