ClearSCADA Mobile for Android - User Manual



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ClearSCADA Mobile for Android - User Manual

ClearSCADA Mobile for Android™

User Manual

Version 2.1



Schneider Electric

Make the most of your energy

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Notes

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When devices are used for applications with technical safety requirements, the relevant instructions must be followed. Failure to use Schneider Electric software or approved software with our hardware products may result in injury, harm, or improper operating results.

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Safety Information

Read these instructions carefully, and look at the equipment to become familiar with the StruxureWare SCADA Expert ClearSCADA and ClearSCADA Mobile before trying to install, operate, or maintain it. The following special messages may appear throughout this documentation or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of this symbol to a Danger or Warning safety label indicates that an electrical hazard exists, which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

A DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, **will** result in death or serious injury.

A WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, **can result** in death or serious injury.

A CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, **can** result in minor or moderate injury.

CAUTION

CAUTION used without the safety alert symbol, indicates a potentially hazardous situation which, if not avoided, **can result in** equipment damage.

PLEASE NOTE

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction and operation of electrical equipment and the installation, and has received safety training to recognize and avoid the hazards involved.

BEFORE YOU BEGIN

ClearSCADA is a Supervisory Control and Data Acquisition (SCADA) solution. It comprises software that is used to control and monitor various devices, applications and processes on your system. Due to ClearSCADA's central control and processing role, you must appropriately design, commission and thoroughly test your system's configuration for proper operation before placing it in service. Any further configuration changes made online (once ClearSCADA is commissioned, tested, and in service) must be thoroughly tested before being used in an operational setting.



UNINTENDED EQUIPMENT OPERATION

The configuration of this product requires expertise in the design, configuration and programming of SCADA control systems. Only persons with such experience should be allowed to configure ClearSCADA. Only persons with the appropriate programming experience should be allowed to write any scripts, Logic programs, expressions, or SQL queries intended for use in ClearSCADA.

Follow all local and national safety codes and standards.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

Introduction

What is ClearSCADA Mobile?

ClearSCADA Mobile is a mobile client and server system for StruxureWare SCADA Expert ClearSCADA. It brings mobility to SCADA operations, allowing technical staff and managers alike to obtain real time information on the performance of the system, even while working in remote locations. A comprehensive feature set is tailored to the needs of mobile users, providing a convenient and powerful operational tool that adds value to your organization.

Communications between the ClearSCADA Mobile Server and the Android™ phones uses SSL to ensure appropriate encryption is used on transmitted data. As the system has been designed from the ground up as a mobile platform, display and data retrieval is achieved in seconds, even for complicated trends or large event journal queries.

Workflow Assistance

Users are notified of new alarm conditions relevant to their area of responsibility, and can action those alarms using the built in alarm and event lists. The database browser provides detailed status information related to any database object to allow more in depth analysis. Trends provide users with the ability to review historic data to make operational decisions for the future and user favorites allow users to store the most commonly used views on their phone for easy retrieval.

Mobile Displays

Mobile Displays are similar to graphical Mimics in that users can access multiple process values from a single text-based "Display".

Custom Queries

Users can get access to tabular data providing easy analysis and comparison. Overall system Key Performance Indicators for management, production summaries, system water flows, reservoir levels etc. can be easily added and made available to users.

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Android is a trademark of Google Inc. Use of this trademark is subject to Google Permissions.

Device Requirements

The following specifications are required for Android mobile device clients.

- Android™ 2.1 (or later) operating system
- Internet access to Google Play™ (to obtain & install phone application)
- Network access to the ClearSCADA Mobile server

What You Need Before You Connect

You need to obtain one or more of the following from your system administrator before you can set up ClearSCADA Mobile on your mobile device:

- Server Address Domain name or IP address of the ClearSCADA Mobile Server
- Username and password Credentials used to access ClearSCADA system

For security reasons, you need to provide your system administrator with the unique Device ID of your mobile device. See Adding a System.

Launching ClearSCADA Mobile

To launch ClearSCADA Mobile, locate the icon in your Applications list as shown below.



Tap the icon to launch.

If this is the first time you have launched ClearSCADA Mobile or you have not added a system, you will be directed to add a new system (see Adding a System).

If you have systems configured, you will be directed to the "Home" page (see The Home Page).

Adding a System

If this is the first time you have launched ClearSCADA Mobile or you have not added a system to your device, you will need to locate your ClearSCADA Mobile server. The process of locating the server can is described in Locating the ClearSCADA Mobile Server.

Once you have located the ClearSCADA Mobile, you then need to provide credentials for the ClearSCADA server that you want to connect to. See Providing Credentials for more information.

Locating the ClearSCADA Mobile Server

The first step in adding a new system requires the device to locate the ClearSCADA Mobile Server.



Complete the following fields:

Server Address

Enter the domain name or IP address of the ClearSCADA Mobile Server that your administrator has provided. You should not enter "http", "https", or the following suffix "mobile/service.svc".

Allow Self-Signed Certificate

This box is checked by default and will allow the application to accept self-signed certificates. Only uncheck this box if you are instructed to do so by your administrator.

If your ClearSCADA Mobile Server uses a self-signed certificate and you do not check this box, you will not be able to access the system.

It is recommended that your administrator uses a signed certificate for security reasons.

Device ID

You must provide your administrator with your Device ID before you attempt to connect. You will not be able to access the system unless the administrator has allowed you to access the individual ClearSCADA systems.

When the fields have been completed correctly and the Device ID has been provided to your administrator, you should press the *Next* button.

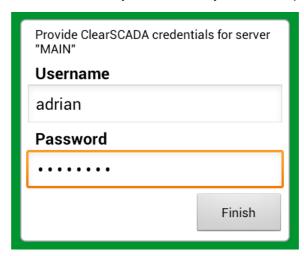
You will be prompted to enter your PIN before you can add a new system.

If the settings are correct you will be directed to a new page prompting you for your credentials (see Providing Credentials).

If you see a popup message appear you should confirm the settings are correct and then retry. If the message appears again, you should contact your administrator.

Providing Credentials

Enter your credentials for the ClearSCADA system to which you are attempting to connect.



Complete the fields, as follows:

Username

Enter your ClearSCADA username.

Password

Enter your ClearSCADA password.

When the fields have been completed correctly, you should press the *Next* button.

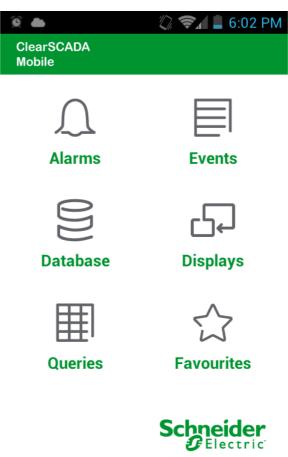
If the settings are all correct you will be directed to the Home page (see The Home Page).

If you see a popup message appear, you should confirm the settings are correct and then retry. If the message appears again, you should contact your administrator.

If you change your credentials in a ClearSCADA system, you will also need to change them in the mobile device. See System Management for instructions on how to update your credentials in the mobile device.

The Home Page

The Home page provides you instant access to the features provided by ClearSCADA Mobile.



To navigate the features, press on an image or the MENU button on your mobile device.

You can return to this page at any time by pressing on the ClearSCADA Mobile text that appears at the top of every page.

Alarms

Select the *Alarms* image to display a list of alarms in the system. The list only shows the alarms that you have permissions to see (as configured in ClearSCADA).

See Alarms for more information.

Events

Select the *Events* image to display a list of events in the ClearSCADA system.

See Events for more information.

Database

Select the *Database* image to browse the hierarchical database representation of the ClearSCADA system.

See Database for more information.

Favorites

Select the Favorites image to access your personalized list of favorites.

See Favorites for more information.

Queries

Select the *Queries* image to display a list of queries that are useful within the ClearSCADA system. This is especially useful for viewing Key Performance Indicators.

See Queries for more information.

Displays

Select the *Displays* image to display a list of Mobile Displays configured on ClearSCADA system. See Displays for more information.

MENU Button

The MENU button items are described in MENU Button.

MENU Button

Pressing the *MENU* button on your mobile device brings up a secondary menu with additional functionality. The menu looks like the image below.



Settings

The *Settings* option allows you to set the retrieval interval for alarm gathering, as well as notification settings for new alarms.

See General Settings for more information.

Systems

The Systems option allows you to:

- Add new ClearSCADA systems to your device for monitoring
- Remove ClearSCADA systems from your device
- Update your credentials for accessing individual systems.

See System Management for more information.

End Session

The *End Session* option closes your current connection to the ClearSCADA Mobile server. Once you end your session, you will need to re-enter your PIN before you can access any systems again.

Your session will "time out" after an period of inactivity. The length of the period is configured by your administrator and cannot be changed on the mobile device.

Change PIN

The Change PIN option allows you to change your PIN number. You will be required to enter your current PIN number before selecting your new PIN. If you forget your PIN, you should contact your administrator who can reset your PIN for you.

See PIN Security for more information.

About

The *About* option provides information about the application, including version numbers.

General Settings

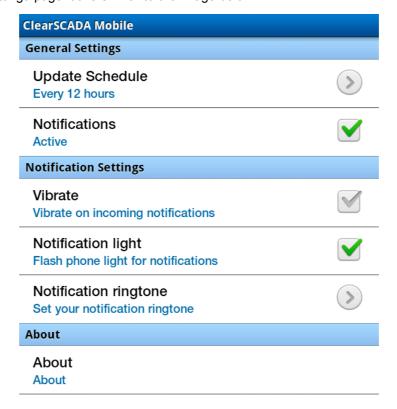


FAILURE TO RECEIVE NOTIFICATION OF ALARMS

Use the alarm notification functionality in ClearSCADA Mobile to complement existing notification mechanisms in ClearSCADA (e.g. email, SMS).

Failure to follow these instructions can result in death, serious injury, or equipment damage.

The General Settings page looks similar to the image below.



Update Schedule

The *Update Schedule* setting allows you to determine how often the mobile device will check for new and updated alarms in the ClearSCADA systems.

Notifications

The *Notifications* setting allows you to determine if you will be notified of new or updated alarms. Uncheck this option if you do not want to be notified of new alarms. The Update Schedule setting is independent of this setting - i.e. the mobile device will still check for new or updated alarms even if this option is unchecked.

Vibrate

Check this option if you want the mobile device to vibrate when a new alarm is retrieved.

NOTE: Your mobile device may or may not have a vibrate feature.

Notification Light

Check this option if you want the mobile device to flash the notification light when a new alarm is received by the mobile device.

NOTE: Your mobile device may or may not have a light for notification.

Notification Ringtone

The *Notification Ringtone* setting allows you to select the audible alert that will occur when a new alarm is received by the mobile device.

About

The *About* setting displays information about the ClearSCADA Mobile application, including version information.

Refreshing

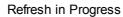
Most pages can be "refreshed" to retrieve the latest information.

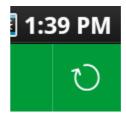
If the current page can be refreshed there will be a refresh icon shown in the top right-hand corner of the page (in the "Action Bar").

The icon will change when a refresh is currently in progress.

The following images show the two different states of the refresh icon.







Not refreshing (press to refresh)

PIN Security

As a security measure, you will be required to entered a PIN after periods of inactivity in order to access your SCADA system(s). Your administrator will provide you with an initial PIN which you will be required to change immediately.

When you are required to enter your PIN, you are prompted with the following screen.



Enter your PIN and press the OK button.

In addition to an automatic "logout" after periods of inactivity, you can also end your session by selecting the *End Session* option on the menu of any page. Press the MENU button on your mobile device to show this menu.



Once you have ended your session, you will be required to re-enter your PIN before you can access your SCADA system(s) again.

Tips

Some tips for PIN safety:

- Keep your PIN a secret.
- Do not let anyone see you enter your PIN.
- Change your PIN regularly.
- Use the End Session option as soon as you have finished your work.

NOTE: This list of tips is not exhaustive.

Alarms



FAILURE TO RECEIVE NOTIFICATION OF ALARMS

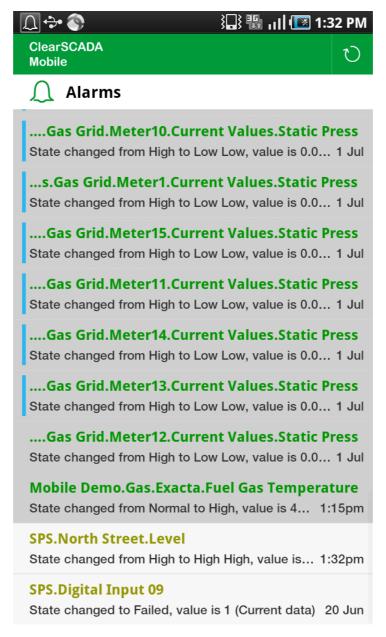
Use the alarm notification functionality in ClearSCADA Mobile to complement existing notification mechanisms in ClearSCADA (e.g. email, SMS).

Failure to follow these instructions can result in death, serious injury, or equipment damage.

The Alarms list is a consolidated view of the alarms you are permitted to view.

A list of current alarms is fetched from the ClearSCADA Mobile Server when the page is opened. The status of this operation is shown in the top right-hand corner of the screen (as described in Refreshing).

A typical Alarms list looks similar to the image below.



The Alarms list is scrollable and shows the following detail for each alarm:

- The Source of the alarm
- The Message associated with the alarm
- The Time of the alarm (if it occurred today) or the Date of the alarm (if it occurred prior to today)
- The System on which the alarm exists (if more than one system configured)

The blue bar on the left of the alarm indicates that you have not looked at the details regarding this alarm. The blue bar disappears when you view the details of the alarm. The blue bar can be cleared for all alarms on display from the Alarm Notification bar.

The color of the Source of the alarm is the Foreground color of the object in ClearSCADA. See section Alarm Color for more information.

The grey background to an alarm indicates that the alarm has not been acknowledged. A white

background indicates that the alarm has been acknowledged.

Text Alarms

You can only acknowledge text alarms from a ViewX interface.

Alarm List Interaction

There are three ways of interacting with the Alarms list:

- Single-press an alarm
- Long-press an alarm
- Press MENU button on mobile device

Alarm Details

A single-press of an alarm in the list will direct you to the details of the alarm. The alarm detail page will look similar to the image below.

| ClearSCADA Mobile | | | |
|----------------------|--|--|--|
| Alarm Details | | | |
| State | Unacknowledged cleared | | |
| Severity | Medium | | |
| Time | 1:15PM, 6/07/2011 | | |
| Source | Mobile Demo.Gas.Exacta.Fuel Gas Temperature | | |
| Message | State changed from Normal to High, value is 49 °C (Current data) | | |
| Category | Point State | | |
| Area Of Interest | World | | |

State

The current state of the alarm:

- Unacknowledged uncleared
- Unacknowledged cleared
- · Acknowledged uncleared

State Color

The color of the State text is described in section Alarm Color.

Severity

The severity of the alarm indicates the importance of the alarm.

Time

The time at which the alarm occurred.

System (Not Shown)

The name of the ClearSCADA system on which the alarm exists.

Source

The full name of the object on which the alarm exists.

Message

The message associated with the alarm.

Category

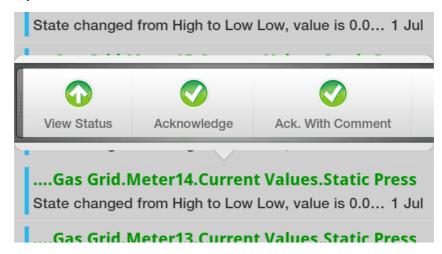
The type of alarm.

Area of Interest

The area of interest associated with the alarm.

Alarm Actions

Performing a long-press on an alarm displays a context-sensitive menu allowing you to perform more actions on an alarm. The menu looks similar to the image below. The white arrow indicates which alarm is currently selected.



The options in the menu varies depending on the alarm state, the object configuration and permissions within the ClearSCADA system. The possible options are:

- View Status
- Display Help View*
- Acknowledge
- · Ack, With Comment
- Disable Alarms

If the available options do not fit on the screen, you can scroll the menu left or right to see more options.

* This option is only available if the ClearSCADA system has been specifically configured to associate a Mobile Help View Display with the object.

View Status

The *View Status* option will direct you to the detailed information of the object associated with the alarm.

See View Status for more information.

Display Help View

The Display Help View option (if available for the alarm) will direct you to a preconfigured Display that can provide useful information when diagnosing the cause of the alarm and the remedial action to take.

See Displays for more information.

Acknowledge

The Acknowledge option allows you to acknowledge an unacknowledged alarm.

Ack. With Comment

The Ack. With Comment option allows you to acknowledge and unacknowledged alarm with a specific comment. This comment will appear in the ClearSCADA event journal.

Upon selecting this option you will be prompted to type in a comment. Enter one or more characters for the comment.

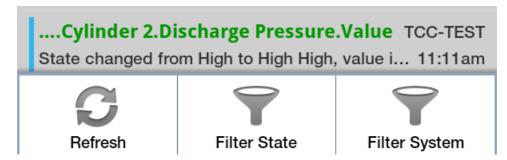
Disable Alarms

The Disable Alarms option allows you to disable alarms for the selected alarm.

Depending on the ClearSCADA Mobile configuration in the server, you may be prompted to specify a duration.

Press MENU Button

Pressing the MENU button on your mobile device displays a secondary menu for interacting with the Alarms list. The menu looks similar to the image below.

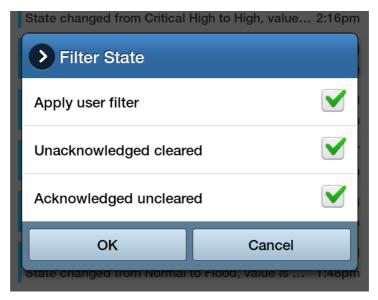


Refresh

Pressing the *Refresh* option will update the list of alarms from the ClearSCADA systems. This is the same as using the Refresh icon in the Action Bar (see Refreshing for more information).

Filter State

Pressing the *Filter St*ate option allows you to show a subset of alarms in the list. You will be prompted to select which options to include in the following dialog.



Apply User Filter

The *Apply User Filter* option applies your Alarm Filter String as specified in ViewX. ClearSCADA Mobile will ignore the "Assigned" filter attribute in the Alarm Filter String (in ViewX) if it is set. ClearSCADA Mobile assumes that the "Assigned" filter is set to *false*.

Unacknowledged Cleared

Uncheck the *Unacknowledged Cleared* option to hide any alarms that are cleared and unacknowledged.

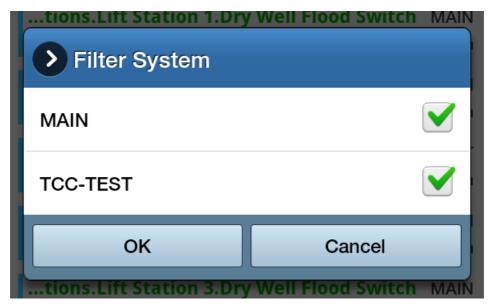
Acknowledged Uncleared

Uncheck the *Acknowledged Uncleared* option to hide any alarms that are uncleared and acknowledged.

Filter System

The *Filter System* option will only be visible if you have multiple ClearSCADA systems configured on your mobile device.

Pressing the *Filter System* option allows you to show alarms for specific ClearSCADA systems. You will be prompted to select the systems that you wish to show/hide alarms for in the following dialog.



Uncheck the option to hide alarms for the specific ClearSCADA system.

Alarm Color

The color of the alarm will be the same as the *Foreground* property of the associated object in the ClearSCADA database (these colors may differ from the Alarm Banner in ViewX).

The Foreground property is taken from the following settings in the Severities section of the ClearSCADA Server Configuration:

- Object Unacknowledged
- Object Cleared
- Object Acknowledged
- Object Acknowledged with Comment

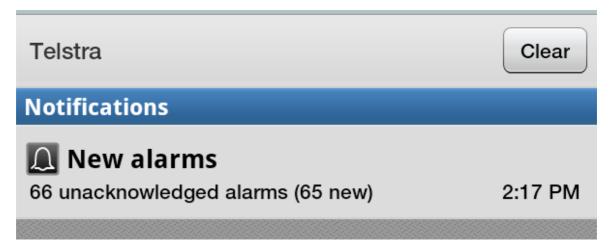
Alarm Notification

The Status Bar informs you if new alarms have been retrieved. (Alarms can be retrieved in the background, when the ClearSCADA Mobile application is not running).

The icon that will appear in the Status Bar is highlighted in the image below.



Sliding the Status Bar down will provide further information about the number of alarms. The notification will look similar to the image below.



Pressing on this notification will direct you to the Alarm list in ClearSCADA Mobile.

Dismissing the notification (either via the *Clear* button or via a swipe-gesture) will mark alarms on display as being viewed (i.e. remove the blue bar from every alarm).

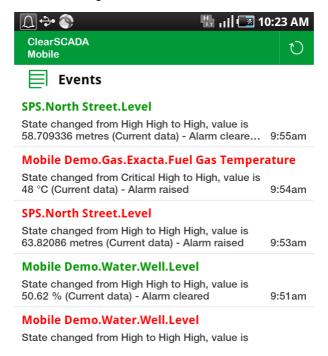
Events

The Events list shows you the **most recent events** in the ClearSCADA system. Unlike the Alarms list, the Events list only shows you a view of events for a single ClearSCADA system at any one time.

A list of events will be fetched from the ClearSCADA Mobile Server when the page is opened. The status of this operation is shown in the top right-hand corner of the screen (as described in Refreshing).

NOTE: The maximum number of events that the device can retrieve is limited to 500. This is done for performance reasons.

The Events typically looks like the image below.



The Events list is scrollable and shows the following detail for each event:

- The Source of the event
- The Message associated with the event
- The Time of the event (if it occurred today) or the Date of the event (if it occurred prior to today)

The color of the Source of the event is the Foreground color of the object in ClearSCADA.

Event List Interaction

There are two ways of interacting with the Alarms list:

- · Single-press an event
- · Press MENU button on mobile device

Multiple Systems

If you have configured multiple systems, the event icon (top left) will have a small arrow below it, as shown in the image below.



t Ganaric DND2 Outstation Naw Direct Channel

Pressing the icon will produce a list of systems that you have configured on your mobile device. Selecting a different system from the list will cause the mobile device to fetch a list of events from the ClearSCADA Mobile Server for the newly selected system.

Event Details

A single-press of an event in the list will direct you to the details of the event. The event detail page will look similar to the image below.

| ClearSCADA Mobile | 4 | |
|----------------------|--|--|
| Event Details | | |
| Source | Mobile Demo.Gas.Exacta.Fuel Gas Temperature | |
| Severity | Medium | |
| Time | 9:54AM, 12/07/2011 | |
| Message | State changed from Critical High to High, value is 48 °C (Current data) - Alarm raised | |
| User | System | |
| Category | Point State | |

Source

The full name of the object that is related to the event.

Severity

The severity of the event indicates the importance of the event.

Time

The time at which the event occurred.

Message

A short text description of the system occurrence that caused the event to be generated.

User

The identity of the user that caused the event to be generated.

Category

The type of event.

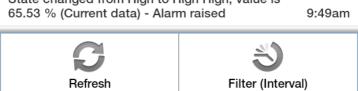
Area of Interest

The area of interest associated with the event.

Press MENU Button

Pressing the MENU button on your mobile device displays a secondary menu for interacting with the Events list. The menu looks similar to the image below.

Mobile Demo.Water.Well.Level State changed from High to High High, value is

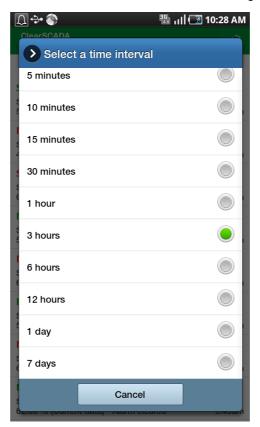


Refresh

Pressing the *Refresh* option will update the list of events from the currently selected ClearSCADA system. This is the same as using the Refresh icon in the Action Bar (see Refreshing for more information).

Filter (Interval)

Pressing the *Filter (Interval)* option allows you to change the interval over which the events are shown. You will be prompted to select the interval to use in the following dialog.

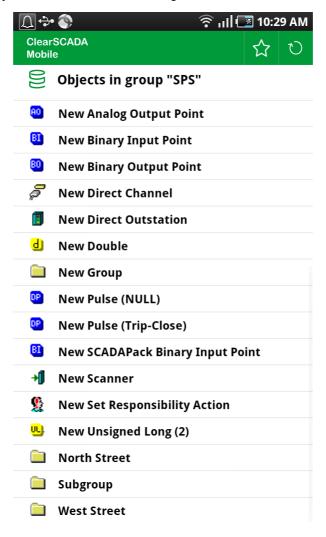


Database

The Database feature allows you to browse through the hierarchical database of ClearSCADA.

A list of database objects at the current level in the hierarchy will be fetched from the ClearSCADA Mobile Server when the page is opened. The status of this operation is shown in the top right-hand corner of the screen (as described in Refreshing).

The list of database objects looks similar to the image below.



You can navigate to sub-folders by clicking on the folder items.

You can navigate back up the folder hierarchy by pressing the BACK button on the mobile device.

The current location will be shown in the title.

Some objects (such as users and mimics) will not appear in the database view on the mobile device.

Database Interaction

There are three ways of interacting with the Alarms list:

- Single-press an object (see below)
- · Long-press an object

Press the MENU button on the mobile device (see below)

Single-Press an Object

Performing a single press on a folder object will allow you to navigate into the selected folder. This will cause the mobile device to fetch a list of objects in the newly selected folder from the ClearSCADA Mobile Server.

Performing a single press on any other object will display the status of the selected object. See View Status for more information.

Press the MENU Button

Pressing the MENU button on the mobile device will display an option to refresh the current location in the database.

Pressing the *Refresh* option will retrieve the list of objects from the currently selected ClearSCADA system. This is the same as using the Refresh icon in the Action Bar (see Refreshing for more information).

Multiple Systems

If you have configured multiple systems, the database icon (top left) will have a small arrow below it, as shown in the image below.



Pressing the icon will produce a list of systems that you have configured on your mobile device. Selecting a different system from the list will cause the mobile device to fetch a list of objects at the root of the newly selected ClearSCADA system.

Object Actions

Performing a long-press on an object displays a context-sensitive menu allowing you to perform more actions on an object. The menu looks similar to the image below. The white arrow indicates which object is currently selected.



The options in the menu will vary depending on the object and permissions within the ClearSCADA system. The possible options are:

- Display
- View Status
- Display Help View*
- Display Events
- Display Alarms
- Display Points
- Refresh
- Display Historic Trend
- Disable Alarms
- Enable Alarms
- Control

If the available options do not fit on the screen, you can scroll the menu left or right to see more options.

* This option is only available if the ClearSCADA system has been specifically configured to associate a Mobile Help View Display with the object.

Display

The *Display* option is available for Mobile Display objects only. Selecting this option will direct you to the Mobile Display screen.

See Displays for more information.

View Status

The View Status option will direct you to the detailed information of the object.

See View Status for more information.

Display Help View

The *Display Help View* option (if available for the object) will direct you to a preconfigured Display that can provide useful information when diagnosing the cause of the alarm and the remedial action to take.

See Displays for more information.

Display Events

The Display Events option will show a list of events filtered on the selected object.

Display Alarms

The Display Alarms option will show a list of alarms filtered on the selected object.

Display Points

The *Display Points* option will only be available for Outstation (CAdvOutstation) and Scanner (CPointSource) objects and will show a list of points on the selected object.

Refresh

The *Refresh* option will only be available for objects that support the Refresh method and if you have permission to perform this action.

Display Historic Trend

The *Display Historic Trend* option will only be available for objects that have the Historic aggregate enabled. See Historic Trends for more information on this feature.

Disable Alarms

The Disable Alarms option will only be available when the following conditions are met:

- The object support alarms, and
- Alarms are currently enabled on the object, and
- You have permission to disable alarms.

Enable Alarms

The Enable Alarms option will only be available when the following conditions are met:

- The object support alarms, and
- · Alarms are currently disabled on the object, and
- You have permission to enable alarms.

Control

The *Control* option will only be available if the object supports controls and you have permission to perform controls on the selected object. See Controls for more information on this feature.

A WARNING

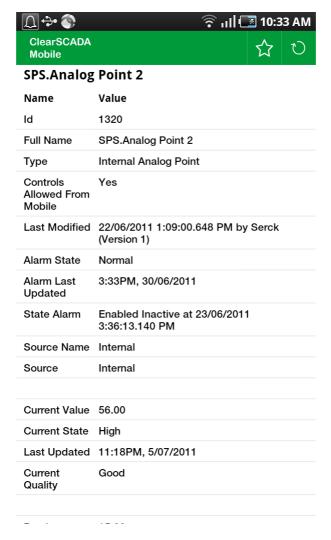
UNINTENDED EQUIPMENT OPERATION

Use the control functionality with care. Before using this functionality, we strongly recommend that you perform a risk analysis to help to ensure that performing such controls will not pose a danger to people or equipment.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

View Status

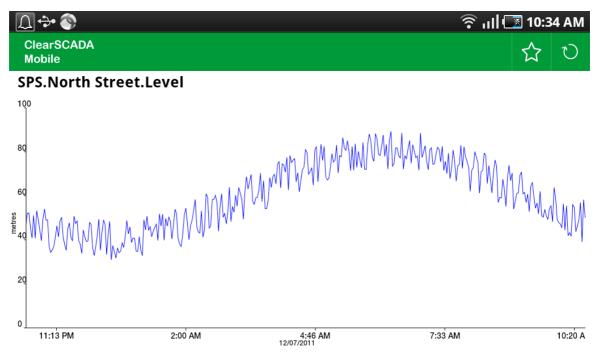
The *View Status* page shows the same information as the View Status option in ViewX and will look similar to the image below.



The list is scrollable and pressing the MENU button allows you to Refresh the current status.

Historic Trends

Viewing the Historic Trend for an object will show a page similar to the image below.



Trend functionality has been optimized for reduced bandwidth. For that reason, the trend does not support "Pinch and Zoom" technology.

NOTE: The maximum number of data points that the device can retrieve is limited to 500. This is done for performance reasons.

Pressing the MENU button on the mobile device will provide a number of options for interacting with the Historic Trend.

Refresh

Pressing the *Refresh* option will retrieve an updated graph of the history for the currently selected ClearSCADA system. This is the same as using the Refresh icon in the Action Bar (see Refreshing for more information).

Set Interval

Pressing the *Set Interval* option allows you to change the interval over which the historic trend is shown. You will be prompted to select the interval to use. Selecting this option will trigger a refresh of the data from the ClearSCADA Mobile Server.

Previous

Pressing the *Previous* option will move the view of the trend backwards in time by the *Set Interval* amount. For example, if the current view shows a 6 hour view from 09:00am on 12th July 2011, the view will move back to 03:00am on the same day. Selecting this option will trigger a refresh of data from the ClearSCADA Mobile Server.

Next

Pressing the *Next* option will move the view of the trend forwards in time by the *Set Interval* amount. For example, if the current view shows a 2 hour view from 08:00am on 12th July 2011, the view will

move forwards to 10:00am on the same day. Selecting this option will trigger a refresh of data from the ClearSCADA Mobile Server.

Go to Date

Pressing the *Go to Date* option will move the view of the trend to the specified date. The time will be the same as the current view. Selecting this option will trigger a refresh of data from the ClearSCADA Mobile Server.

Go to Time

Pressing the *Go to Time* option will move the view of the trend to the specified time on the current date. Selecting this option will trigger a refresh of data from the ClearSCADA Mobile Server.

Controls

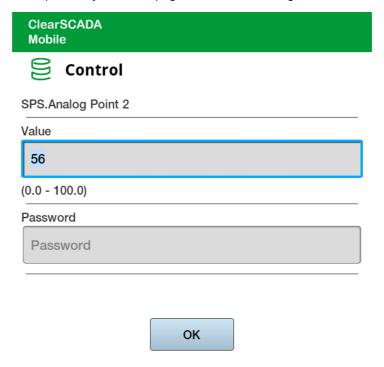


UNINTENDED EQUIPMENT OPERATION

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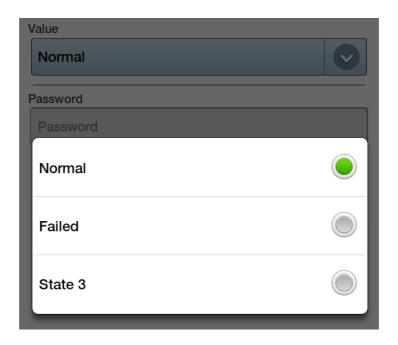
The Controls feature allows you to modify the value of an object within the ClearSCADA system. Selecting this option will present you with a page similar to the image below.



Enter the value you wish to control the value to in the Value field. A range may be displayed depending on the type of object.

For security reasons, you are required to enter your password.

For objects with a known set of values (i.e. digital points), you will be presented with a list of possible control values to select from (similar shown in the image below).

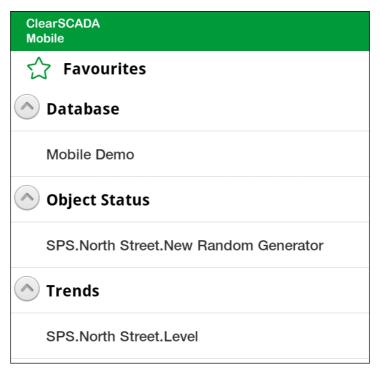


Favorites

The Favorites feature allows you to store links (or shortcuts) to specific information. The Favorites list is grouped by:

- Alarms
- Database
- Displays
- Events
- Historic Trend
- Object Status
- Query

The Favorites list looks similar to the image below.

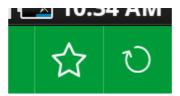


Pressing on a Favorite will direct you to the appropriate page.

To add or remove a Favorite to the list see Adding and Removing Favorites.

Adding and Removing Favorites

To add a new view to the list of Favorites, click on the star icon in the Action Bar at the top of the page. The star icon will only be visible for views that can be added to the Favorites list.



When you press the star icon you will be prompted to enter a name for the Favorite (see image below). The default name will be the selected object name.



When a view is added as a Favorite, the star icon will change color to yellow.



Removing a Favorite

To remove a Favorite from the list, simply press on the yellow star icon in the Action Bar.

Queries

The Queries list shows you a list of queries configured in the ClearSCADA Mobile Server. Unlike the Alarms list, the Queries list only shows you a view of events for a single ClearSCADA system at any one time.

A list of queries will be fetched from the ClearSCADA Mobile Server when the page is opened. The status of this operation is shown in the top right-hand corner of the screen (as described in Refreshing).

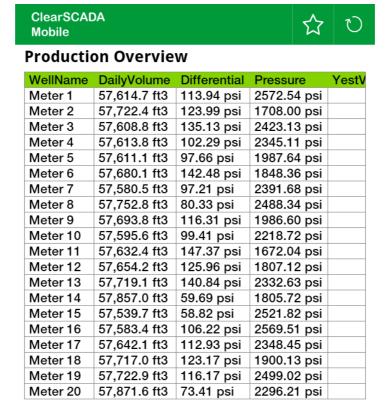
The Queries list looks similar to the image below.



The Queries list is scrollable and shows the following detail for each query:

- The Name of the query
- A Description of the query

A single press of the query will fetch the query information from the ClearSCADA Mobile Server and will produce a tabular view similar to the image below.



The table will scroll both horizontally and vertically when required.

NOTE: Queries are restricted to a maximum of 500 rows.

Pressing a cell within the table will highlight the cell and row as shown in the following image.



Multiple Systems

If you have configured multiple systems, the query icon (top left) will have a small arrow below it, as shown in the image below.



Pressing the icon will produce a list of systems that you have configured on your mobile device. Selecting a different system from the list will cause the mobile device to fetch a list of Queries from the ClearSCADA Mobile Server for the newly selected system.

Displays

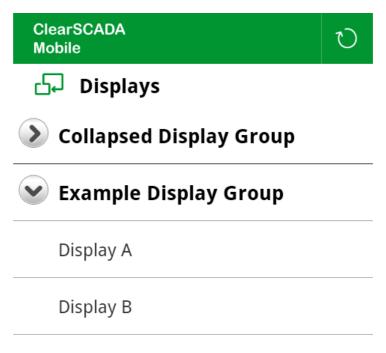
The Displays feature allows you to:

- Show multiple values from the database in a single view. This is ideal for bringing together important information for an entire site or a sub-section of a site.
- Provide navigation to other features within ClearSCADA Mobile for a specific object within the database (e.g. event list for a group).

A Display could be considered to be a simplified Mimic that is easy to use on any size screen.

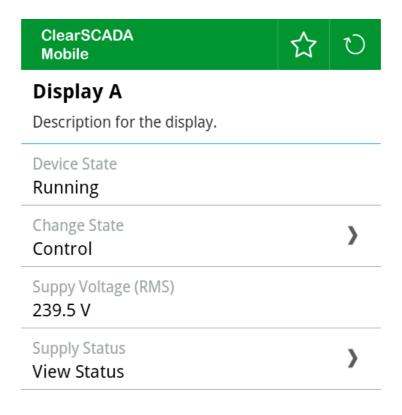
A list of displays will be fetched from the ClearSCADA Mobile Server when the Displays page is opened. The status of this operation is shown in the top right-hand corner of the screen (as described in Refreshing).

Listed displays are organized into groups which may be expanded or collapsed by pressing the Group title.



Displays listing showing both collapsed and expanded Display groups

To view a specific display, simply press the Display name within the listing and you will be navigated to that Display. The following example shows the results of navigating to 'Display A' above.



Viewing a Display

Displays may used to present various items, these include:

| OPC Tags: | Display items may be used to show the value of an OPC Tag at the point in time the display was last refreshed. |
|---------------------------------------|---|
| Links to an Event List: | Links labeled 'Display Events' may be used to navigate to the Events list of a particular object. |
| Links to an Alarms List: | Links labeled 'Display Alarms' may be used to navigate to the Alarms list of a particular object. |
| Links to a Historic Trend: | Links labeled 'Display Historic Trend' may be used to navigate to the Historic Trend chart for a particular object. |
| Links to a Point Control: | Links labeled 'Control' navigate to the Controls page for a particular object. |
| Links to a Status View: | Links labeled 'Status View' may be used to navigate to the View Status page for a particular object. |
| Navigation to a Database Group: | Links labeled 'View Group in Database' may be used to navigate to a specific group in the Database. |
| Navigation to another | Links labeled 'View Mobile Display' may be used to navigate to another Mobile Display within the system. |

Pressing the MENU Button

Display:

The menu for each Display contains a Refresh button which triggers an update of the display with fresh data. See Refreshing for details.

Pressing the BACK Button

Pressing the back button from a ClearSCADA Mobile Display will take you back to the previously viewed screen. This is especially useful when navigating through collections of linked Displays or viewing sub-screens (such as Alarm or Event lists).

System Management

Opening the System Management page will show you a list of systems similar to the following image.



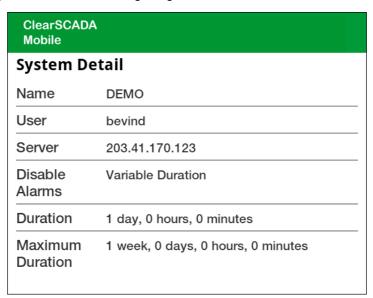
Adding Another System

To add another system to your mobile device, simply press the + button in the Action Bar. You will then be prompted for the required information (see Adding a System for more information).

View System Information

To view information about the ClearSCADA system, simply press on the system in the list.

You will see a page similar to the following image.



Pressing the MENU button when viewing system information will display the following menu.



Update Credentials

If you change your credentials for ClearSCADA you will also need to update your credentials in the mobile device. Select the *Update Credentials* option and enter your new password.

Remove System

If you no longer require access to a specific ClearSCADA system, you can remove the system by selecting the *Delete System* option.

Update Settings

If your ClearSCADA administrator changes any of the Disable Alarms settings, you can refresh them in your mobile device by selecting the *Update Settings* option.