

Alarming Configuration

1 Purpose

This procedure provides instructions for the configuration require for Alarming. NOTE that only items that are changed or added in each area are described. The TopView documentation appears to be quite thorough and should be consulted first for more detailed descriptions.

2 Business Objective

This document is intended to provide information about the alarming system that would be useful for troubleshooting or modification of the alarming system.

3 Resources

TopView SQL documentation.

TopView version 6.11 documentation.

Access to the MySQL database (phpmyadmin).

Access to the TopView configuration software.

4 Configuration Documentation

4.1 On the SCADA Server

1. Create a table in the RCPSA database called PhoneAlarm. This table is used to define the alarms that will be dispatched to telephones.

Field	Type	Comment
PhoneAlarmIndex	Int	Used by TopView to uniquely identify each alarm.
PhoneAlarmMessage	Varchar(255)	Message that will be dispatched to telephones.
PATH	Varchar(255)	PATH from Alarm Tags of alarm to be dispatched to telephones.
STATE_NAME	Varchar(255)	STATE_NAME from Alarm Tags of alarm to be dispatched to telephones.



2. Create a view in the RCPSA database called vwPhoneAlarm. This view provides TopView with the message that is to be enunciated and to indicate that there is an alarm condition.

```

SELECT `PhoneAlarm`.`PhoneAlarmIndex` AS `PAIndex`,
       `PhoneAlarm`.`PhoneAlarmMessage` AS `PAMessage`,
       ifnull(
         left(
           concat(`PhoneAlarm`.`PhoneAlarmMessage`,
                 cast(`Alarm_Log`.`ACTIVE_TIMESTAMP` as char)),
           length(`PhoneAlarm`.`PhoneAlarmMessage`)),
         0) AS `Alarm`,
       `Alarm_Log`.`ACTIVE_TIMESTAMP` AS `ActiveTimestamp`,
       `Alarm_Log`.`CLEARED_TIMESTAMP` AS `ClearedTimestamp`
FROM (`PhoneAlarm` left join
      `Alarm_Log` on(
        ((`PhoneAlarm`.`PATH` = `Alarm_Log`.`PATH`) AND
         (`PhoneAlarm`.`STATE_NAME` = `Alarm_Log`.`STATE_NAME`) AND
         (`Alarm_Log`.`ACTIVE_TIMESTAMP` is not null) AND
         isnull(`Alarm_Log`.`CLEARED_TIMESTAMP`))))

```

This view will provide the following information:

Field	Comment
PAIndex	Used by TopView to uniquely identify each alarm.
PAMessage	Message that will be dispatched to telephones.
Alarm	This is the primary field used by TopView and will equal: 0 – if it is not in alarm or if the alarm has been acknowledged. PAMessage – if it is currently in alarm condition.
ActiveTimestamp	Time alarm condition began
ClearedTimestamp	Time alarm condition was cleared (in Ignition)

3. Add PATH and STATE_NAME to the PhoneAlarm table for each alarm condition that should be dispatched to telephones.

4.2 On the Alarm server

Use the **TopView SQL** documentation for the following steps:

1. Create a connection to the RCPSA database called RCPSA.





2. Create a query to get the alarm data from the RCPSA database. Name the query RCPSA_ALARMS.

```
SELECT * FROM vwPhoneAlarm WHERE PAIndex=%P1%
```

3. Create first tag. This tag will pull the row out of vwPhoneAlarm in which PAIndex=1.
 - a. Name: 001
 - b. Database: RCPSA
 - c. Query: RCPSA_ALARMS
 - d. %P1% = 1
 - e. Tag value column: Alarm
4. Export tag, edit CSV, making 249 copies of tag 001, change the tag name (002 – 250), and %P1% = (2 – 250), import the updated CSV. This should result in 250 tags with each tag pulling the row out of vwPhoneAlarm with PAIndex equal to the tag name.

Use the **TopView** documentation for the following steps:

1. In the Global Settings area create a schedule called RCPSA (this will be used for the schedule in the tag limits). It should be set to be used “Always.” In the future, if it is desired to have different functionality at different times, additional scheduled can be created, and multiple alarm limits can be set with different limits using different schedules.
2. In the Global Settings area create contacts that will be notified by the alarming system. Each contact should have at least one phone number.
3. In the Global Settings area create a Voice Recipient group called RCPSA (this will be used for the notify in the tag limits). In the future, this can be used along with schedules to notify different people on different days or at different times.
4. Add recipients to the RCPSA global voice group. Adding or deleting recipients from this group immediately changes who is notified via phone of the alarm conditions.
5. Create a TopView configuration called “RCPSA.cfg.”



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6. Add all tags on the RPCSA server to the current tag list.
7. Edit the first alarm limit for tag 001 (this alarm is used to test the alarming system):
 - a. Condition: !
 - b. Value: 0
 - c. Schedule: RCPSA
 - d. Custom alarm message: %value%
 - e. Only use custom alarm message: check
 - f. Notify: RCPSA
8. Edit alarm limits for tag 002:
 - a. The same as for tag 001 except:
 - b. Delay IN: 600 (this causes TopView to only call out if the alarm is not acknowledged for 10 minutes (600 seconds)).
9. Export all the tags to CSV and edit CSV changing alarms 003 – 250 such that they are the same (except for tag number) as alarm 002.
10. Import the CSV.
11. Edit the Voice Notification Settings, selecting the Hi-Phone Desktop Lite as the TAPI device.
12. In “Options” check “Auto-restart on configuration changes”.
13. Save the configuration.
14. Configure TopView to run as a service (“Configure Services”) by pressing “Install”. NOTE the TopView Configurator must be run as administrator for this to work (right click, select “Run as Administrator”).

