TEKVOX Enterprise Management System Operations Guide

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Version: TE2022V3.0

TekEnterprise
Software Operation Guide

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1. Login

Visit www.tekenterprise.net or your locally assigned URL for the system if installed locally, and enter an assigned username and password. If you do not have a username and password, please request an account by clicking **Request Account**. Once approved by a system admin, you will receive a notification. If you have logged in using a guest account, you'll need to gain approval from your admin.

Login Screen

2. Welcome Page

After successful login, you will enter the welcome page. If multiple campuses are being managed, the desired campus can be selected under the **Campus** heading. You can also navigate to all other management options that are allowed under the permissions given to the user. A Notification list is provided below to display any notifications created by system admins.

TEKVOX TEKVOX Enterprise Management System

TEK University

| Contact | Logout (tekops) | TekManager | Assets | Reports | Maintenance | SAM | Account | Admin |

Welcome to *TEKVOX Enterprise Management System*

Campus

TEK University

Notifications

Event	Type	Notification Time
TekEnterprise Training 1:00PM - 2:00PM Wednesday the 9th	Notice	2022-02-07 13:37:03.000
Network will be dome in Building A for Maintence on the 12th	Notice	2022-02-07 13:39:52.000
Projectors in building B are being replaced on the 20th	Notice	2022-02-09 13:50:41.000

Displaying 1-3 of 3 results.

Welcome Screen

3. TekManager

Selecting **TekManager** in the menu bar will allow you to view all TekMonitors located within the selected campus from the previous step. Selecting individual buildings under the **Project tree** will allow you to view only those TekMonitors within that building.

Once selected, the view level will display above the device list and information about each TekMonitor, including serial number, IP, online status, System Power, and Device Power will become visible at a glance across the entire selected view.

TekManager Screen

The **View Selection** dropdown determines how the data is organized in the data grid. The view structure itself is created within the TekManager Windows app. Hovering over any error icon will display the error or value of the item in a tooltip

Selecting the room name will produce a pop up relating all assets recorded for that room.
Further selecting the asset name in the pop up will produce a pop up with all attributes for that asset.
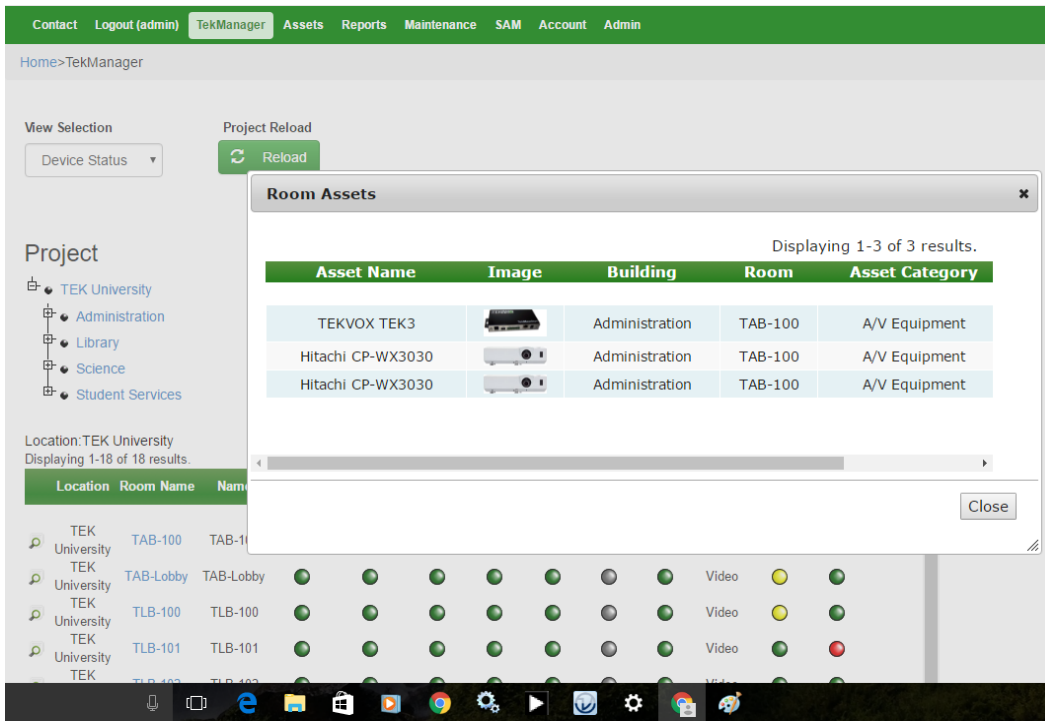
Room Asset Dialog
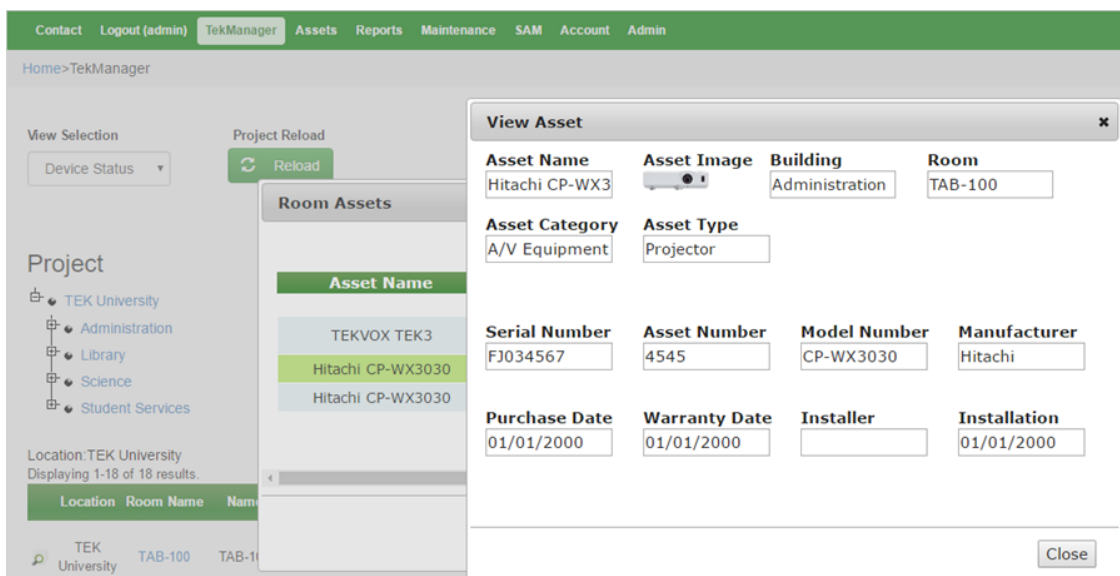
Asset Attribute Dialog

If you wish to query or control a particular room, click the **magnifying glass icon** of the desired TekMonitor, and you'll be able to see the specifics of that room in greater detail, as well as Individual control elements. These are typically grouped into **host**, **projector control**, and **system control groups**.

Host control accesses the high level functionality of the TekMonitor including timers, power control, and logic status information. Projector control consists of all the controls available to control a particular type of projector. System control consists of all the controls available to control external control systems such as AMX or Crestron. The highlighted buttons indicate current selected states while text boxes give current status information for the individual group controls.

Home>TekManager> / TekControl

Building: Administration
Room: TAB-100

| TekVox Phantom Projector | Control System | TekVox Phantom Projector-2 | TekVox Phantom Projector-3 |

Host

Date/Time: Wednesday 11/09/2016 15:03:51

System Power: Off On

System Off Timer SR: Stop Run

Motion Off Timer SR: Stop Run

System Off Seconds: 0

Host Control Screen

Building: Administration
Room: TAB-100

Projector Control Screen

4. Assets

The asset tab allows you to add, track, and allocate assets (projectors, computers, etc). You can also search Assets by type of asset or location by narrowing different search parameters. In addition, the **Asset Add** and **Asset Import** provide methods of adding new asset information to the system. The Asset Configuration defines the campus structure for the asset types.

Asset Add and Asset Import

4.1 Asset Search

Asset Search allows you to search for assets based on parameters such as location information, (campus, building, or room) type of asset, (furniture, A/V equipment, etc.) and attributes such as warranty or installation dates. The search results will appear in a list which you can export to an Excel file. Asset data may be edited or the asset deleted from the resultant search list. Selecting the asset name from the search list will produce a pop up giving the attributes of that asset without going into an edit session.

Asset Search

Asset Attribute pop up

4.2 Asset Add

The Asset Add function allows you to enter asset data directly to the system. The Asset Name is a general nomenclature given to the asset to specifically identify it such as "Samsung Cellphone".

Next, click on the image icon to import an image of the device from the user's system, or to select a link to the device image already loaded. Once the image is loaded or selected, it will appear in the proper place. From this point, enter in the asset location information including campus, building, and room. Then enter in the category and type of asset eg. A/V Equipment, Projector. Once the type is selected, the specific attributes of this asset will appear which are then filled in appropriately. When completed, select the **Add** button to store asset data away.

Asset Import - The Asset import feature allows you to retrieve asset information from your TekMonitors. Once the scan is complete you will be propted to review and approve asset information before it is added to TekEnterprise

Assets - Add

Asset Search
Asset Configure
Asset Import

*Fields with * are required.*

Asset Name *

Asset Image
IMAGE
GOES
HERE

Asset Campus *

TEK University ▼

Asset Building *

---Select--- ▼

Asset Room *

---Select--- ▼

Asset Add Screen A

Asset Category *

A/V Equipment ▼

Asset Type *

Control System ▼

Asset Attributes

Serial Number	Asset Number	Model Number	Manufacturer

Purchase Date	Warranty Date	Installer	Installation Date
07/30/2016	07/30/2016		07/30/2016

⬇ Add

Asset Add Screen B

5. Reports

You can generate and review reports this section on subjects including access, maintenance, power savings, status, usage, and asset reports. To generate a report, select the type of report that you need. A pop up window will then allow date parameters to be entered, the campus location selected, and a report will be generated in PDF format. The report will appear as a link at the bottom of the screen which can be accessed and saved locally if desired. There are also options to subscribe to reports and to set up event notifications.
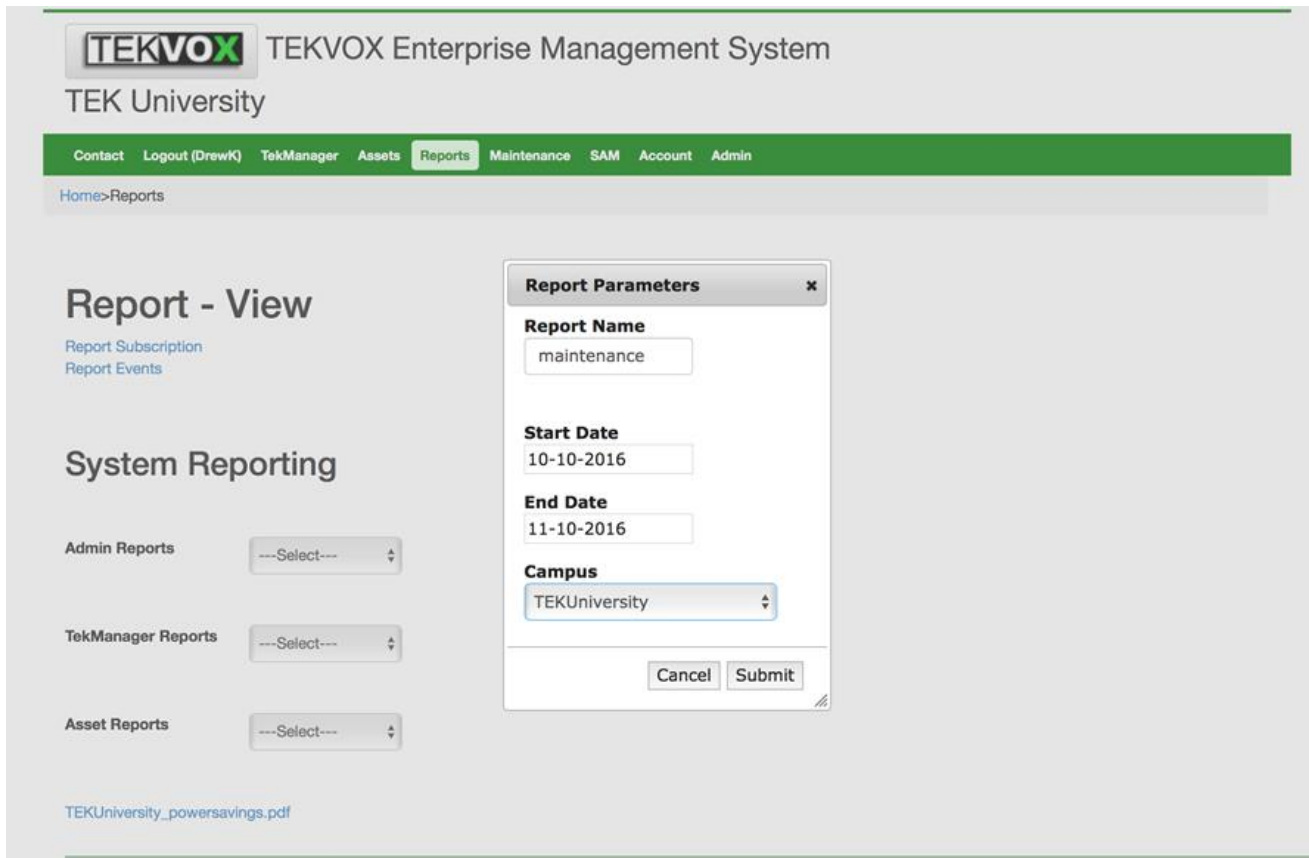
Report View Screen

5.1 Report Subscription

Reports may be subscribed to by selecting the desired report from the report categories. Once selected, a pop up will appear requesting the campus designation. Finally, select the reporting period desired, monthly, weekly, or daily. If monthly or weekly is selected, then select which day of the month or day of the week desired for report generation. Once set, the report will be emailed to the user on the specified day. If permissions allow, the user may assign reports to other users by selecting the desired user and submitting the **Subscribe** button.

Report Subscription Screen

5.2 Report Events

The Report Events section provides a feature which allows users to get specialized notifications on low level system events such as "TekMonitor Offline" and "Lamp Hour Expiration". When these events are detected, a notification is sent to subscribed users via email. This feature may also be utilized in order to interface into 3rd party ticketing systems.

In order to utilize this system, the events of interest must be set up for detection. You can do this by locating the **Event Definition** entry and entering the event key phrase to search for. The most prominent event phrases are defined in **Appendix A**. Enter in the value limits desired in order to trigger the event. If no value limits are applicable, enter **0**, then select **Save** to store the event. As an example, if an event for lamp expiration time is needed, enter in **Reported Lamp Time**, then **200** for the Alert limit (lamp time less than 200 hours remaining) and then enter **50** for the **Fault** limit (lamp time less than 50 is a fault).

An email format is also required to be defined and the system comes with a standard format which can be used in most cases. If a special format is desired, a simple script language is employed in order to define this in **Appendix B**.

In order to now subscribe to the event, the user selects the event from the dropdown list, selects what level of notification is needed, Alert level, Fault level, or Both. The email format of notification is then selected using Standard Format unless a special format is required. If permissions are allowed, the user may assign these notifications to other personnel by selecting the user to be notified and then selecting Subscribe.

To Un-Subscribe, select the event from the Events dropdown list, select the user to un-subscribe, and select **UnSubscribe**.

Event Definintion

Events	Event Name	Port	Alert Level	Fault Level
---Select--- ▼	Reported Lamp Time	0	200	50

Save   Delete   Delete All

Event Email Reponse Format

Formats	Description	Format
Standard Online Alert ▼	Standard Online Alert	#Subject~TekEnterprise~#Event~Event~#Level~#Message~TekMonitor~#MonitorNar

Save   Delete   Test

Event Definition Screen

Event Subscription Screen

Event Un-Subscription Screen

An example of what your Event email may look like is below:
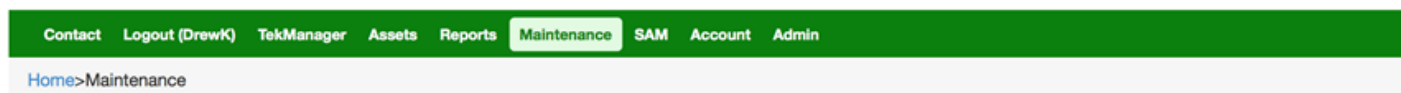
Sender: *TekEnterprise* tekenterprise@tekvox.com

Subject: *TekEnterprise Reported_Lamp_Time Event Fault*

Body: *TekMonitor CASA327 Hit-CP-WX3011N in Room CASA327 of Building CASA is now at Fault*

6. Maintenance

Viewing the maintenance tab allows the user to view the campus, building, serial number, and date of errors that have been reported by TekMonitors. These can be narrowed down or filtered by search parameters at the top of the screen. Entering an **Error Filter** can narrow result to a specific error type such as "Filter Error". Results may be exported to a local excel file using the **Excel Export button** and entering a File Name if the default name is not acceptable. Errors may be deleted by selecting the deletion icon for the particular event. Also, notes regarding an event may be entered by selecting the edit icon for the event.

Maintenance Screen

7. Account

Users can view details about their account and make changes related to their username, password, email, and other personal details related to the account. If the system is setup to utilize the Active Directory information, select the **LDAP** option and do not enter a password. Select **Save** when completed.

Account Screen

8. Admin

If the user has Administrator permissions, this section will be visible and allow the user to make use of **Administration Tools**. These tools include the ability to view other users under **User Accounts**, and change details and permissions of those accounts. This will allow you to add or delete view selections, create user roles, report access, view security, and create notifications.

The **Event** section includes failed login attempts and account requests. Account requests will prompt you to add a user account when clicked (e.g. *User Jim Bo requests an account for CyFair Domain*) as is shown below.

| Contact | Logout (admin) | TekManager | Assets | Reports | Maintenance | SAM | Account | Admin |

Home>Admin

Administrator Tools

User Accounts
View Editor
Role Editor
Report Access
Notifications

Activity/Action Items

Event		Time of Event
User ExampleUser1 from IP	attempted to login	2022-02-11 03:48:42

Displaying 1-1 of 1 result.

Admin Screen

8.1 User Accounts

The user accounts page allows for reviewing, editing, and deletion of user accounts. In order to review an account, select the **User Name** link in the user list. From this window the user account information and access rights may be modified by the admin, or the user account will be deleted altogether. If the **Add User** button is selected, an empty account page will be presented allowing for the complete user information to be added.

Add User

Current Users

User Name	User Role	First Name	Last Name	Name	Email	Phone Number	Modified	Created	Approved
ExampleUser4	TestRole1	Per	Son	Per Son	example4@email.com	###########	2022-02-11 15:41:09.000	2022-02-11 15:41:09.000	admin
ExampleUser5	TestRole1	John	Doe	John Doe	example5@email.com	##############	2022-02-11 15:41:38.000	2022-02-11 15:41:38.000	admin

User Account Screen

If Active Directory **LDAP** usage is desired, select the LDAP checkbox and do not enter a password. Default user roles are **Admin** and **Guest**. Custom roles may be defined within the **Admin Utilities** and used for user account access rights.

Add/Edit User Screen A

The final section of the user account information contains an **API key**. This key is utilized to gain secure access to the service engine(s) of the enterprise system. This access is further described in **Appendix C**. Assigning Read only access allows only system queries to be performed and no system control (writes) allowed.

Add/Edit Screen B

8.2 View Editor

The views presented by TekManager are created by the TekManager windows application. The names assigned to the views are required to be added to the enterprise system in order to utilize them. In order to do this, select the **Add** button on the **View Editor** page and enter the **Viewname** as shown in the TekManager Windows app into the Viewname box and then select **Save**. The view will then appear on the enterprise TekManager page for selection. To delete a view selection from the enterprise system, select the view in the dropdown list on the View Editor page and select **Delete**.
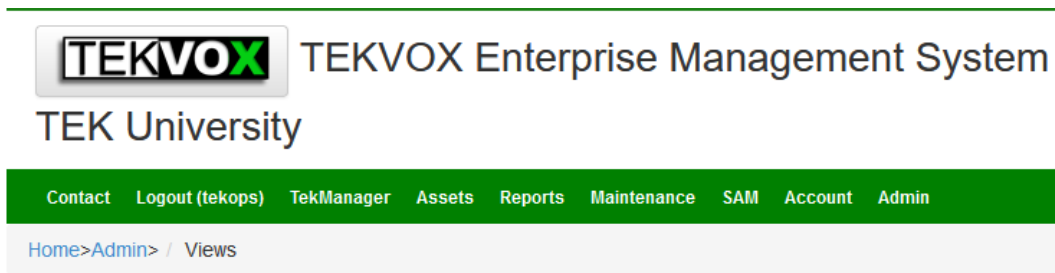
View Editor Screen A
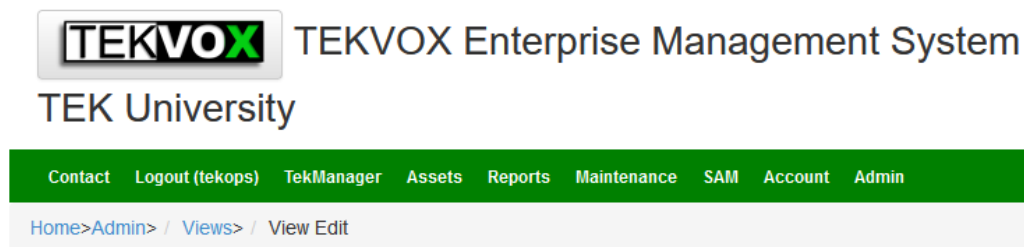
View Editor Screen B

8.3 Role Editor

The role editor is utilized for creating roles within the system to allow for very granular access rights down to the room device level of access. The default roles provided by the system are **Admin** and **Guest**. Admin has all access rights while guest will have no access rights. In order to create a new role, select the **Role Editor** from the Admin screen and then select the applicable campus. Once this is completed, select the **Add**.
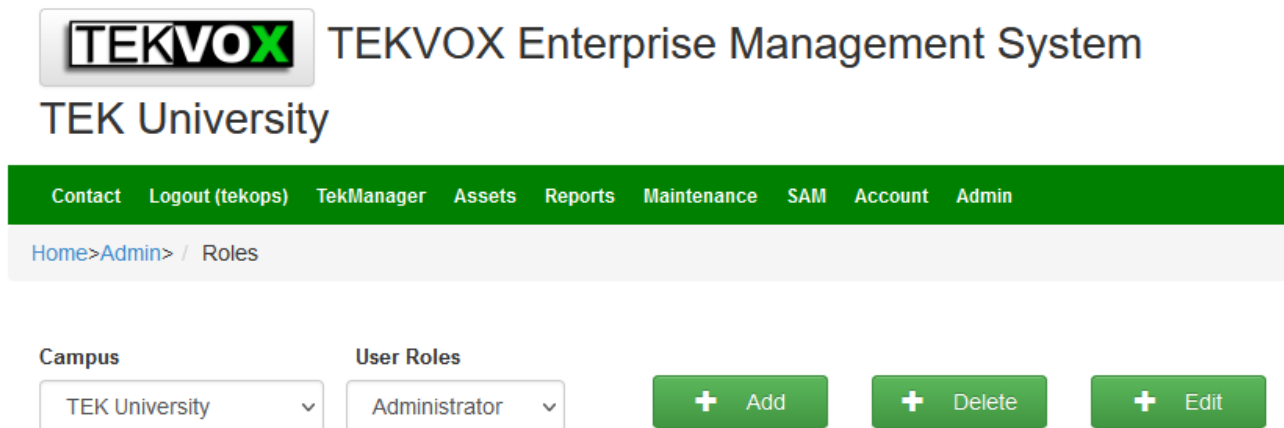
Role Editor Screen

This will present a screen will all selectable access rights. Select desired campus building and/or room access, then select the asset access rights by selecting the category or types of assets to include in this new role. Once this is completed, select the control access rights.

*Fields with * are required.*

Rolename *

Admin

TEK University

Building Access Rights

- ☑ Administration
- ☑ Library
- ☑ Science
- ☑ Student Services
- ☑ New Braunfels
- ☑ Art Building
- ☑ Music
- ☑ Test
- ☑ Demo

Asset Access Rights

- ☑ A/V Equipment

Role Add/Edit Screen

The **Control Access Rights** are defined within the TekManager windows app and consist of **Administrator**, **Help Desk**, and **Monitor** levels. Help Desk and Monitor level do not contain any control level access, only monitor level access is allowed.
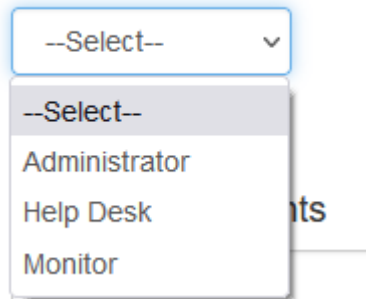
Control Access Rights

Next, select the **View Access Rights**. These views are defined by the TekManager windows app and selecting these views determines what is available in the TekManager enterprise window under view selection. From this point, report selection comes next. This selection determines what reports, if any, are presented to this user role in the reports section.

View Access Rights

Finally, select what notifications are sent to the user role, alerts, errors, or notices. **Alerts** are notifications of events at the a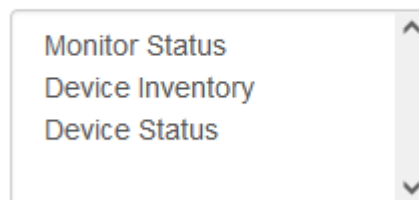lert level while errors are notifications at the fault level. Notices are any notifications that are presented to the user at login.

Once all the selections are made, select **Save** to store the new role. Users may now be assigned this new role if desired. To edit a role, just select the role name from the User Roles dropdown on the **Role Editor** page and select **Edit**. This will present a page like the role definition page, but with all selections reflecting the previous definition of the role made.

Make any changes required to the role selected, then, again select **Save** to save the modifications to the role. Deletion of a role works much the same as editing it, just select **Delete** instead of **Edit**, and the role will be removed. Any users assigned the deleted role will be assigned to the default guest role and will need to be re-assigned a proper role.

Report Access Rights

admin_Ranges.jrxml
admin_access.jrxml
asset_AssetAge.jrxml
asset_AssetInfo.jrxml

Notifications

☐ Alerts
☐ Errors
☐ Notices

⬇ Save

Role Add/Edit Screen C

9. Notifications

Notifications are used for informing users of impending events or actions. Such notifications may indicate required changes to the system or possibly meeting notices. These notices typically appear at the home page upon login if users are given rights to receive notifications. Upon selecting notifications, a pop up appears giving all current notifications. These notifications may be deleted by selecting them and selecting Delete.

To Add a notification, enter the desired text into the **New Notification** box, enter the number of days the notification is to be active, and select **Add**. The entered notification will appear at the login home page until the number of days from notification creation have expired, at which time the notification is automatically removed.
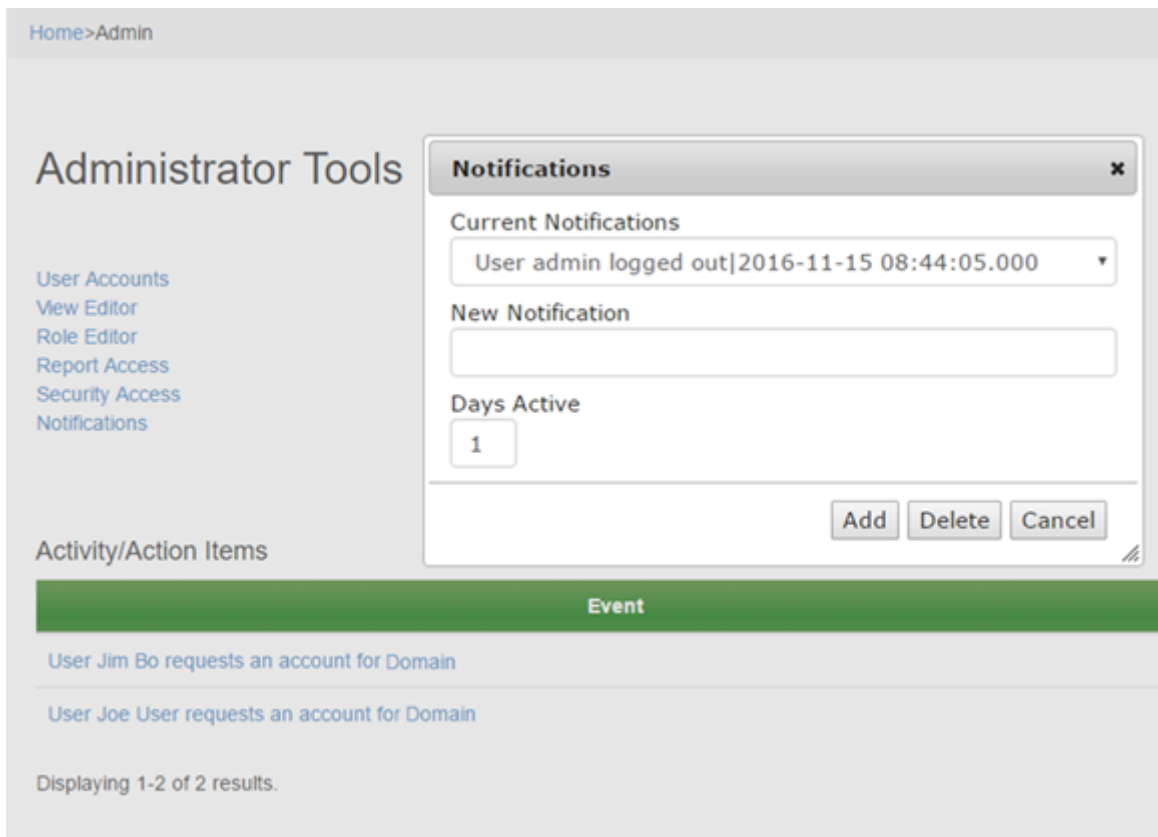
Notification Pop Up

10. Appendix A

Triggerable Events

Online_Status – Online or Offline – Indicates TekMonitor online status change

Remaining Lamp Hours – Value – Indicates remaining projector lamp hours

Remaining Maintenance Hours – Value - Indicates remaining projector filter hours

Reported Lamp Time – Value – Indicates reported lamp hours

Reported Filter Time – Value – Indicates reported filter hours

Motion – On or Off – Indicates state of motion sensor

Note: More triggers could be added such as detecting certain input sources, but the need has not been found for these additional triggers.

11. Appendix B

Email Formatting Script

Key Fields

#Subject – Put in subject field mode
#Message – Put in message field mode
#Event – Add event string (Triggered Event)
#Level – Add level string (Alert or Fault)
#value – Add value string (Value detected)
#Building – Add building name string
#Room – Add room name string
#MonitorName – Add TekMonitor name string
#SerialNumber – Add TekMonitor serial number
#Campus – Add campus name string
#Category – Add device category string
#Type – Add device type string

'~' is item delimiter

Example:

#Subject~TekEnterprise~#Event~Event~#Level~#Message~TekMonitor~#MonitorName~in Room~#Room~of Building~#Building~is now at~#Value

                                     |-----#Event-----| |-#Level-|
Subject Field: TekEnterprise Reported Lamp Event Alert

                                |-#Monitor Name-| |-#Room-|
Message Field: TekMonitor RM103-CP-X417 in Room RM103 of Building

|-#Building-| |-#Value-|
  Science is now at Fault