



***Envision**Manager*

Simulation Tool

Quick Start Guide

Version 1.1b

PHILIPS
dynamalite 

Introduction

The EM Simulation Tool is a special version of EnvisionManager (EM) designed for sales demonstrations. It simulates the day-to-day operation of a site, and demonstrates automated schedules and device monitoring functionality.

Normally a site project is commissioned in EnvisionProject, and then its data is imported via a job file into EM's database for use as the headend interface. The default job file supplied with the Simulation Tool includes preconfigured lighting schedules for demonstration purposes.

Note that using a custom EP project will require schedule data to be created manually in EM, which is outside of the scope of this document.

Contents

1	Installation	3
2	Simulation Tool Interface	5
2.1	<i>Window Controls</i>	5
2.2	<i>Time</i>	5
2.3	<i>Fixture Faults</i>	6
2.4	<i>Network Faults</i>	6
3	Demonstrating Scheduled Events	7
4	Diagnostic Functionality	8
4.1	<i>Lamp Failure</i>	8
4.2	<i>Ballast Failure</i>	10
4.3	<i>DALI Emergency</i> <i>Lamp Battery Failure</i>	13
4.4	<i>Lamp Life</i>	14
4.5	<i>DyNet Network Faults</i>	16
4.6	<i>DALI Network Faults</i>	18
5	Frequently Asked Questions	18
	What user rights do I need to run the Simulation Tool?	19
	Can I make changes to the job file in EnvisionProject?	22
	Where can I learn more about EnvisionManager and EnvisionProject?	23

1 System Requirements

Specification	Requirement
Operating System	Windows 7 SPI / Windows 8 / Windows Server 2008 R2
Processor	Intel Core i5/i7 at 2.30GHz
Hard Disk	10GB minimum is required for the application
Installed memory (RAM)	4GB

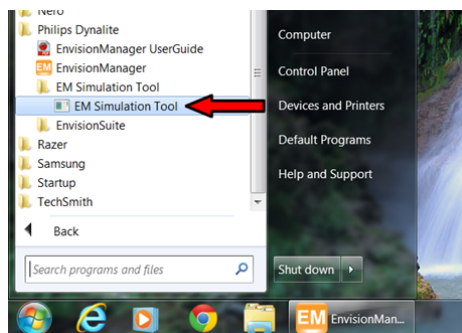
2 Installation

► Installing EnvisionSuite:

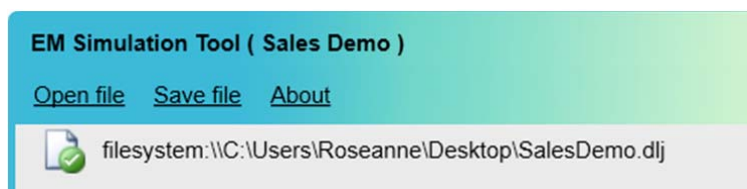
1. Ensure that all previous or current versions of any Envision software have been removed from the operating system. Note that removing this software will not affect existing project files.
2. Double-click the installer file and follow the onscreen prompts to install the required prerequisites and EnvisionSuite components.
3. The Simulation Tool client itself is not yet installed at this point. Navigate to C:\Philips Dynamite\EnvisionSuite\EnvisionManager Client\ and double-click Setup.exe, then follow the onscreen prompts to install the EM client software.

► Loading job file:

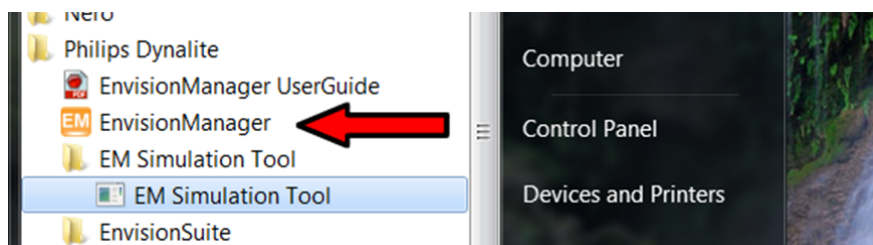
1. From the Start Menu, open All Programs > Philips Dynalite > EM Simulation Tool >EM Simulation Tool.



2. Click “Open file” in the top left corner of the Simulation Tool window, and follow the prompts to select a job file. Once opened, the job file will be loaded to the EMServer database.



3. Click Save File to save any changes back to the job file. This is only necessary if you wish to modify the job file, not the currently running instance on the server.
4. Once installed and set up, open EnvisionManager (Start → Philips Dynalite → EnvisionManager) alongside the Simulation Tool, and log in to EM using the current Windows user’s credentials.



If a job is already running in EMServer from a previous session, the Simulation Tool will automatically use that upon loading.

Note: If changing between jobs, log out of EnvisionManager by clicking the “log out” link in the top right corner. Completely close both the EM window and the Simulation Tool window, then reopen both and log back in again as in the procedure above.

3 Simulation Tool Interface

The Simulation Tool window contains three window controls and three panes:


3.1 Window Controls

The Simulation Tool window is designed to run alongside EnvisionManager, and has window controls in the top right corner to make this easier on computers with limited display areas.



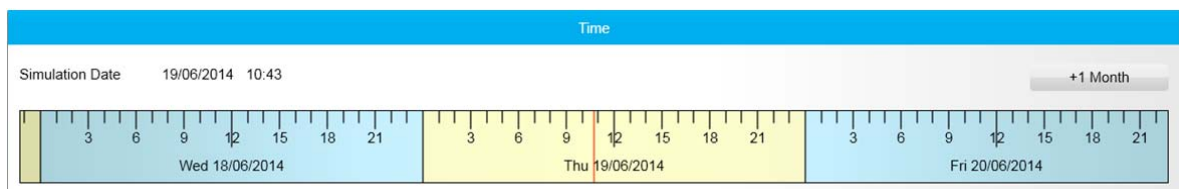
Clicking the Pin button toggles the window's Always On Top mode, allowing it to hover over any other currently open windows when pinned. This allows easy access to the simulation controls even when performing tasks in EM.



The Minimize button () shrinks the Simulation Tool Window down to just the Timeline Slider, allowing an unimpeded view of scheduled events in EM as the slider is dragged (see Time section below). Click the button again to restore the full window.

The Close button () closes the Simulation Tool window, but leaves EM running.

3.2 Time

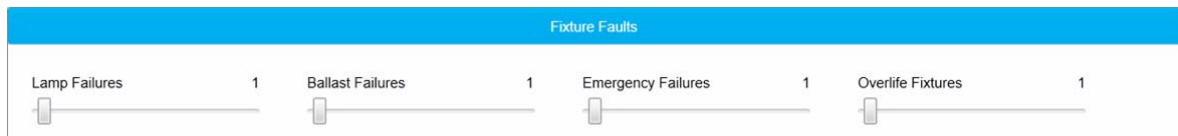


The timeline slider controls the passage of time in EM, and can be used to demonstrate scheduled events, macros, lamp life/runtime, notional power consumption and the effects of various user actions. Click and drag the slider left or right to move the EnvisionManager simulation forward or backward in time.

Clicking the +1 Month button will move the slider forward by exactly one month, generating notional power usage history that can be viewed in EnvisionDashboard (must be installed separately; please refer to the EnvisionDashboard User Guide for more information).

Note that all delays in macros are ignored while in simulation mode.

3.3 Fixture Faults



This pane shows sliders that can be used to trigger different types of simulated diagnostic events:

- **Lamp Failures** – This event occurs when a DALI ballast reports that one or more of its lamps has failed.
- **Ballast Failures** – This event occurs when a DALI ballast goes offline or reports a ballast error.
- **Emergency Failures** – This event simulates a backup battery failure in a DALI emergency lighting fixture.
- **Overlife Fixtures** – This event occurs when a lamp passes the end of its expected operational life.

3.4 Network Faults



This pane contains buttons to simulate DALI and DyNet network events:

- **Simulate DALI network fault** – This button simulates a fault in the DALI network, due to either equipment failure or damage to the physical network.
- **Confirm Ballast replacement** – This button simulates the physical replacement of all faulty DALI ballasts on the network.
- **Simulate DyNet network fault** – This button simulates a fault in the DyNet network, due to either equipment failure or damage to the physical network.

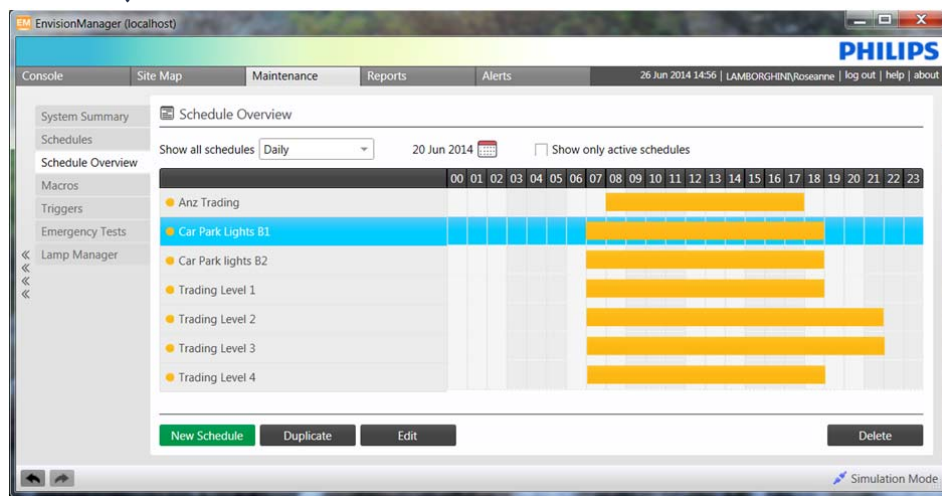
The following chapters explain how to use each of these functions to demonstrate the capabilities of the EnvisionManager software.

4 Demonstrating Scheduled Events

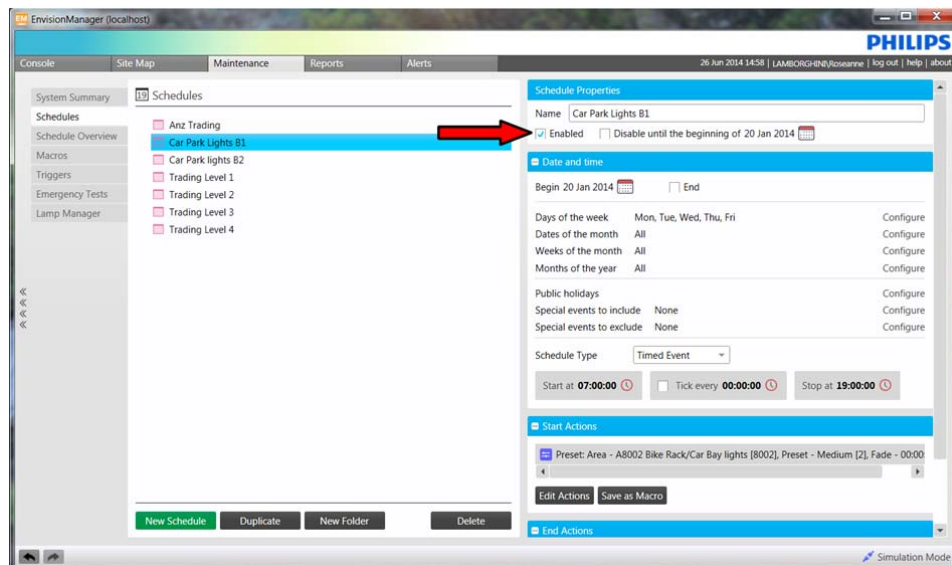
EnvisionManager includes powerful scheduling and astronomical functions that allow events to be triggered at specific times and dates, providing significant energy savings. Scheduling allows predictable repeated events, such as office lighting turning on during business hours, to occur with no manual intervention required.

► Demonstrating scheduled events:

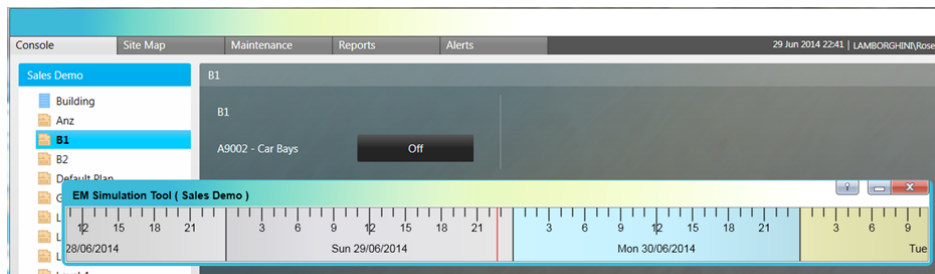
1. In EM, click on Maintenance → Schedule Overview to show which schedules are active on the simulation date currently selected in the Simulation Tool timeline. It is a good idea to give schedules clearly descriptive names, e.g. “Car Park Lights On” instead of just “Car Park”.



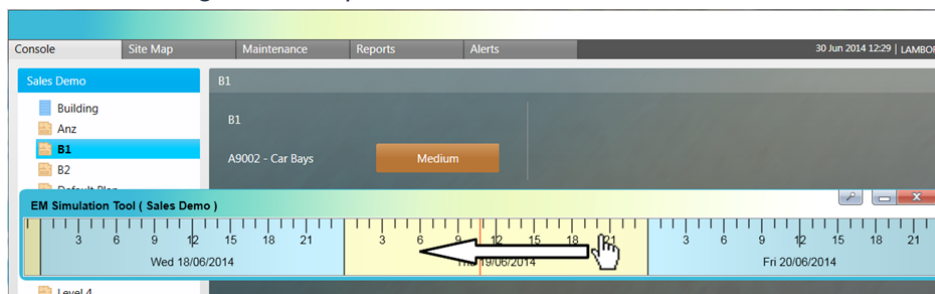
2. To view the details and actions of a specific schedule, double click on its name to go to the Schedules page. You can also access this page by selecting the Schedules tab from the left-hand menu. Ensure that the Schedule Properties → Enabled checkbox is ticked.



- Once you have identified an Area with a scheduled activity assigned to it, open the Console or Site Map tab and scroll or navigate to that Area.



- Click and drag the Simulation Tool timeline slider through the beginning and end of a scheduled event to show its actions taking place in EM. In the example below, the Console button state changes, showing that a Medium lighting preset had been issued to the assigned area as per the scheduled event.



5 Diagnostic Functionality

EnvisionManager can accurately track and report lamp run time, ballast performance and faults within a particular area, reducing operational and maintenance costs. The Simulation Tool includes a number of specific fault simulations to demonstrate how EnvisionManager captures and reports these issues, enabling building managers to address them in a timely and cost-effective manner.

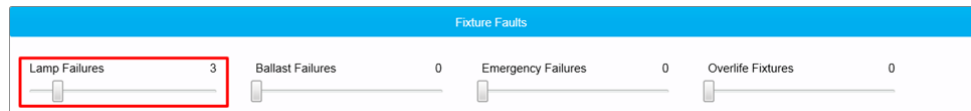
5.1 Lamp Failure

EnvisionManager will display an alert when a DALI ballast reports a lamp failure, and can accurately track and report on lamp run time, ballast performance and failures within a particular area to improve operational efficiency and reduce maintenance costs.

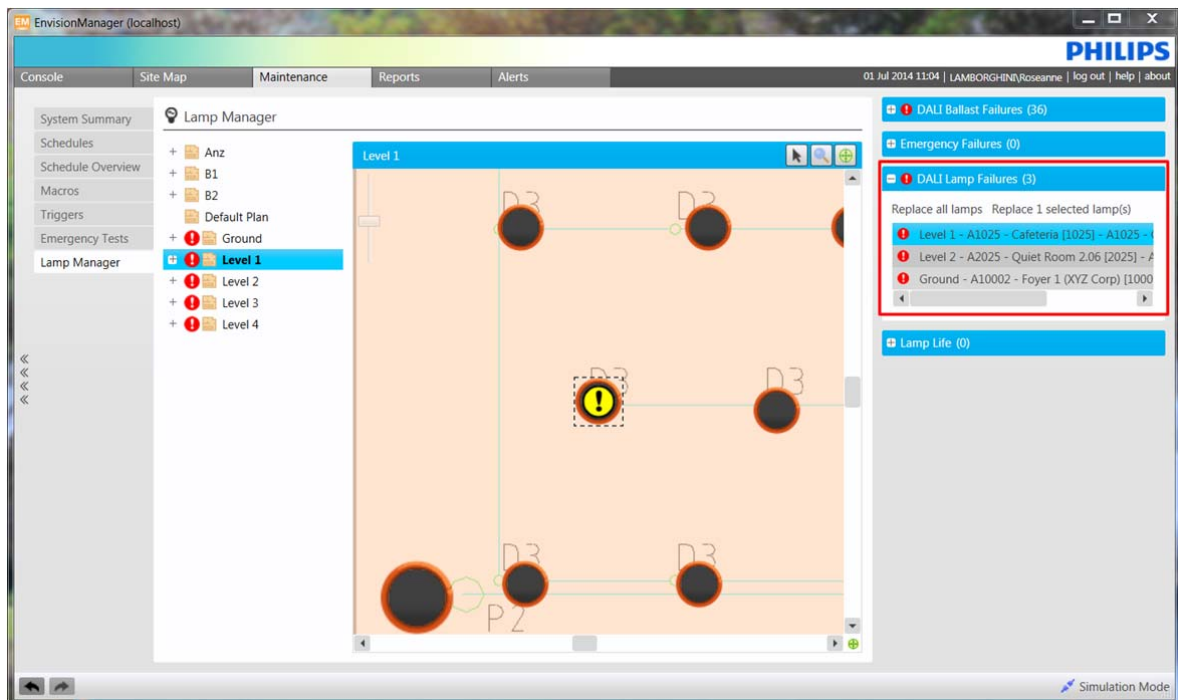
The Lamp Manager page is used for lamp maintenance in a floor or area. This page contains the area tree of each floor, the floor plan and lamp maintenance controls.

► Demonstrating detection and replacement of failed lamps:

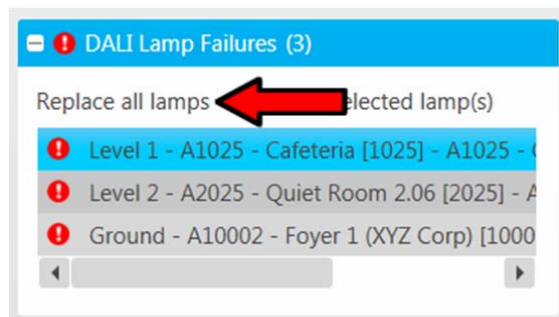
1. In the Simulation Tool window, move the Lamp Failures slider to trigger the required number of lamp failures.



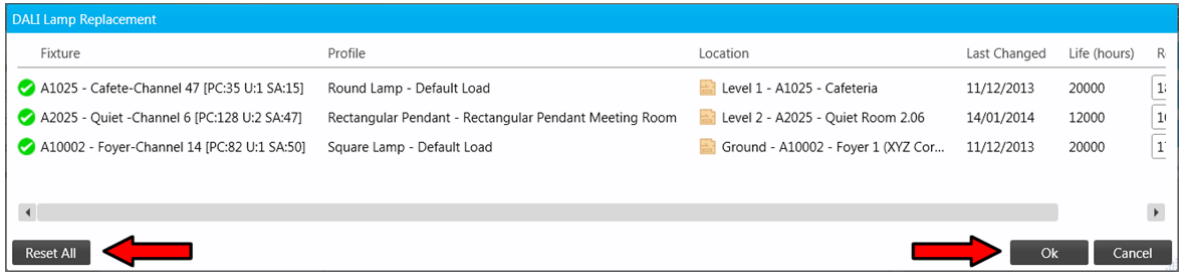
2. In EM, go to Maintenance → Lamp Manager. The failed lamps are displayed in the DALI Lamp Failures box in the right-hand column. Clicking on each entry will go to the affected lamp on the map.



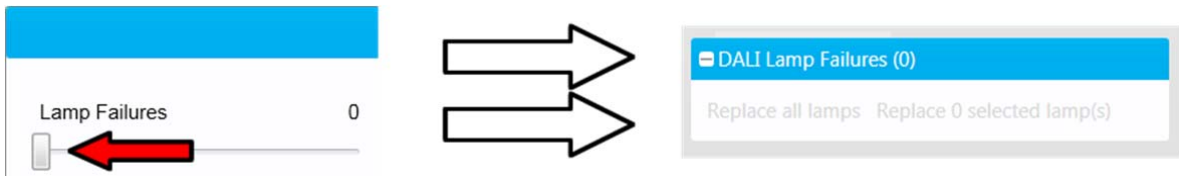
3. Click Replace All Lamps to open the replacement dialogue box. In a real-world setting, you would do this after the physical lamps had been replaced.



- Click Reset All to reset the lamp runtimes, then click Ok.



- In the Demo Tool window, move the Lamp Failures slider back to zero. The lamp failure entries will be cleared in EM.



5.2 Ballast Failure

Ballast failure messages are triggered by a DALI ballast going offline or reporting a ballast error in response to polling from the Envision server. As in the Lamp Failures example above, EnvisionManager aids the isolation and location of failed ballasts to ensure ease of maintenance with minimal downtime.

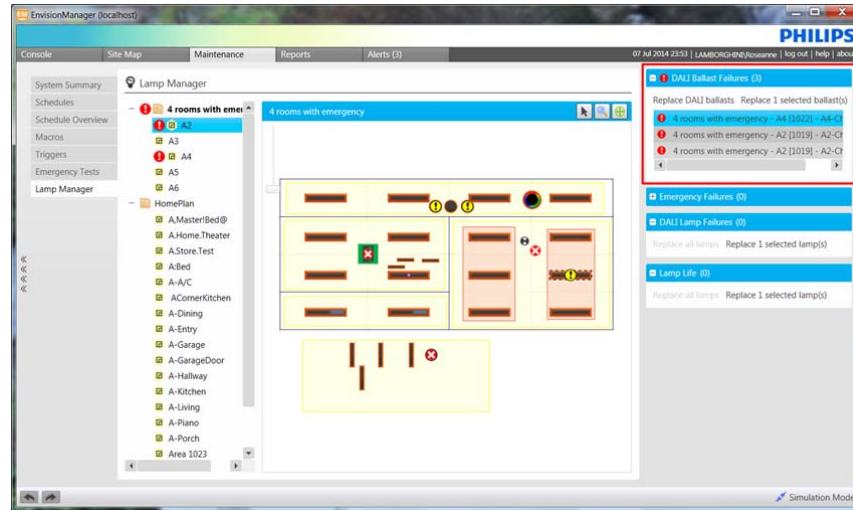
In a real-world setting, there are several extra steps required to identify and correctly locate a new DALI ballast so that normal operation is resumed, especially in cases where multiple ballasts are replaced at the same time. This process is handled automatically by the Simulation Tool for the purposes of the demonstration.

► Demonstrating diagnosis and replacement of failed ballasts:

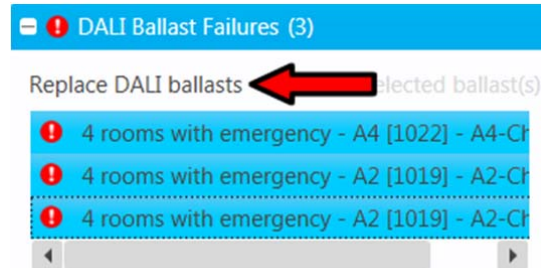
- In the Simulation Tool window, move the Ballast Failures slider to trigger the required number of ballast failures.



- In EM, navigate to Maintenance → Lamp Manager. The failed ballasts are displayed in the DALI Ballast Failures box in the right-hand column. Clicking on each entry will go to the affected ballast on the map.



- Highlight all the ballast failure entries by clicking the first entry in the list, then Shift-clicking the last. Now click Replace DALI Ballasts to open the replacement dialogue box. In a real world setting this would occur after the ballasts have been replaced.



- Tick the Replace column checkbox for each ballast, then click Next.

DALI Ballast Replacement

Step 1: Select ballasts to replace.
Associated devices will query the status of connected ballasts. From the discovered ballasts select which are to be replaced.

Replace	Name	Location	DALI Address	Status	Type
<input checked="" type="checkbox"/>	A2-Channel 4	4 rooms with emergency - A2 [1019] - A2-Channel 4 [4]	U:1 SA:41	Ballast Error	Normal
<input checked="" type="checkbox"/>	A2-Channel 9	4 rooms with emergency - A2 [1019] - A2-Channel 9 [9]	U:1 SA:24	Ballast Error	Normal
<input checked="" type="checkbox"/>	A4-Channel 3	4 rooms with emergency - A4 [1022] - Logical Channel 3 [3]	U:1 SA:59	Ballast Error	Normal

! The selected ballast is offline. Click 'Next' to continue Step 2.

Querying Ballast Status

- EM will display a “No ballasts found” message, as there no new ballasts available to detect. In a real-world setting the new ballasts would be detected by the server at this point, as simulated in the next two steps.

DALI Ballast Replacement

Step 2: Configure ballast
Configure the new hardware with the original settings.

Flash	Name	Location	Physical Channel
<p>No new ballasts were found. Please try again. <input type="button" value="Search"/></p> <p>Querying Ballast Type</p> <p>Progress bar: [Green bar]</p>			

Buttons: Cancel, Back, Next, Finish

- In the Simulation Tool, click the Confirm DALI Ballast Replacements button. This will reset the Ballast Failures slider to zero and populate the server database with new ballast information. The new ballasts will now be detected in EM.

Network Faults

Buttons: Simulate DALI network fault, **Confirm Ballast replacement**, Simulate DyNet network fault

- Click Finish. The newly ‘installed’ ballasts are now integrated into the DALI network and will resume normal operation.

In the Simulation Tool, the ballasts are automatically assigned to their correct physical channels, whereas in a real-life situation they would have to be flashed to identify their location to an observer, then assigned to the correct physical channel in this screen before proceeding.

DALI Ballast Replacement

Step 2: Configure ballast
Configure the new hardware with the original settings.

Flash	Name	Location	Physical Channel
<input type="checkbox"/>	A4-Channel 3	A4 [1022] - Logical Channel 3 [3]	A4-Channel 3 [PC:6 U:1 SA:34] ▾
<input type="checkbox"/>	A2-Channel 4	A2 [1019] - A2-Channel 4 [4]	A2-Channel 4 [PC:62 U:1 SA:32] ▾
<input type="checkbox"/>	A2-Channel 9	A2 [1019] - A2-Channel 9 [9]	A2-Channel 9 [PC:63 U:1 SA:49] ▾

Multiple new ballasts were found. These new ballasts need to be correctly identified by flashing before finishing the replacement.

Querying Ballast Type

Progress bar: [Green bar]

Buttons: Cancel, Back, Next, Finish

5.3 DALI Emergency Lamp Battery Failure

DALI Emergency ballasts are automatically identified as such by the EnvisionProject software during commissioning, and assigned to a Default Emergency Group, from which they can be moved to more specific emergency groups as required. Lamp and ballast failures in this group are handled similarly to normal DALI fixtures but reported separately to aid maintenance and safety requirements. Additionally, emergency tests can be scheduled or started manually to confirm that all emergency fixtures in a particular group are functional.

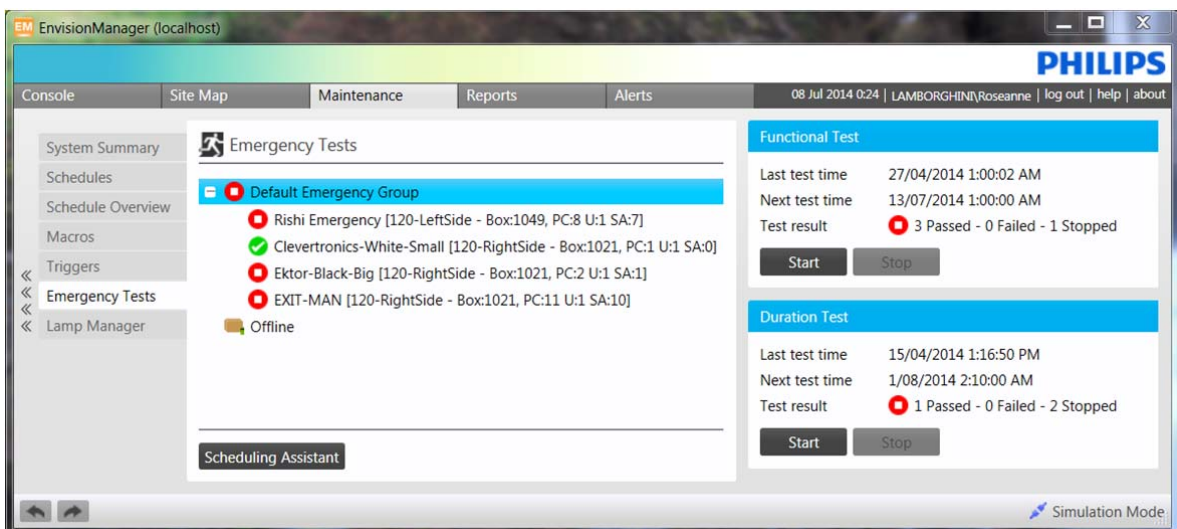
The Simulation Tool simulates the failure of one or more emergency fixture backup batteries.

► Demonstrating EnvisionManager’s emergency testing procedure:

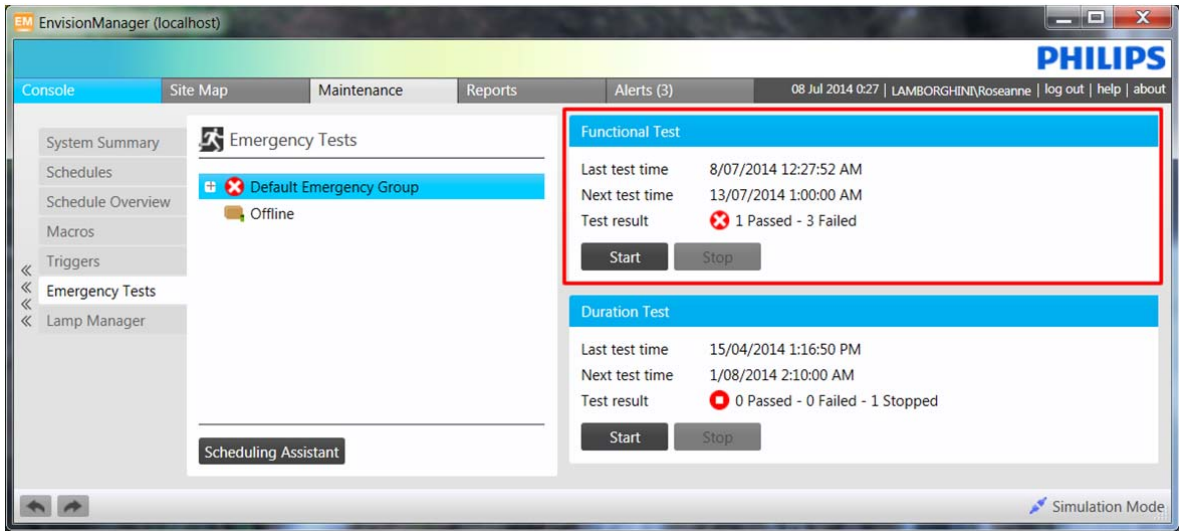
1. In the Simulation Tool window, move the Emergency Failures slider to trigger the required number of lamp battery failures.



2. In EM, navigate to Maintenance → Emergency Tests, then click on Default Emergency Group.



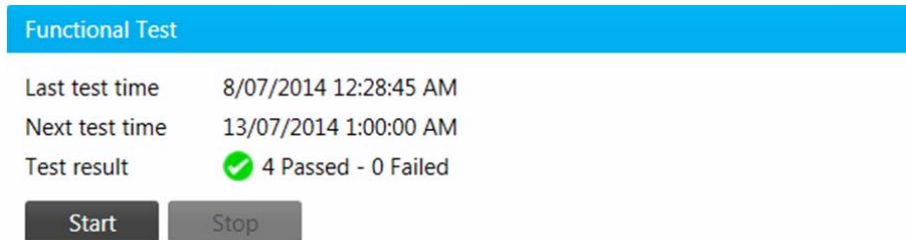
- In the right-hand column, click the Functional Test → Start button. The Test Result field will update to show the selected number of failures.



- In the Simulation Tool window, move the Emergency Failures slider back to zero to simulate a physical battery replacement.



- Start the Functional Test again. This time, all Emergency ballasts will show as Passed.

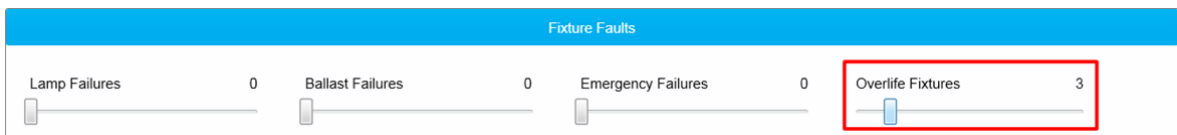


5.4 Lamp Life

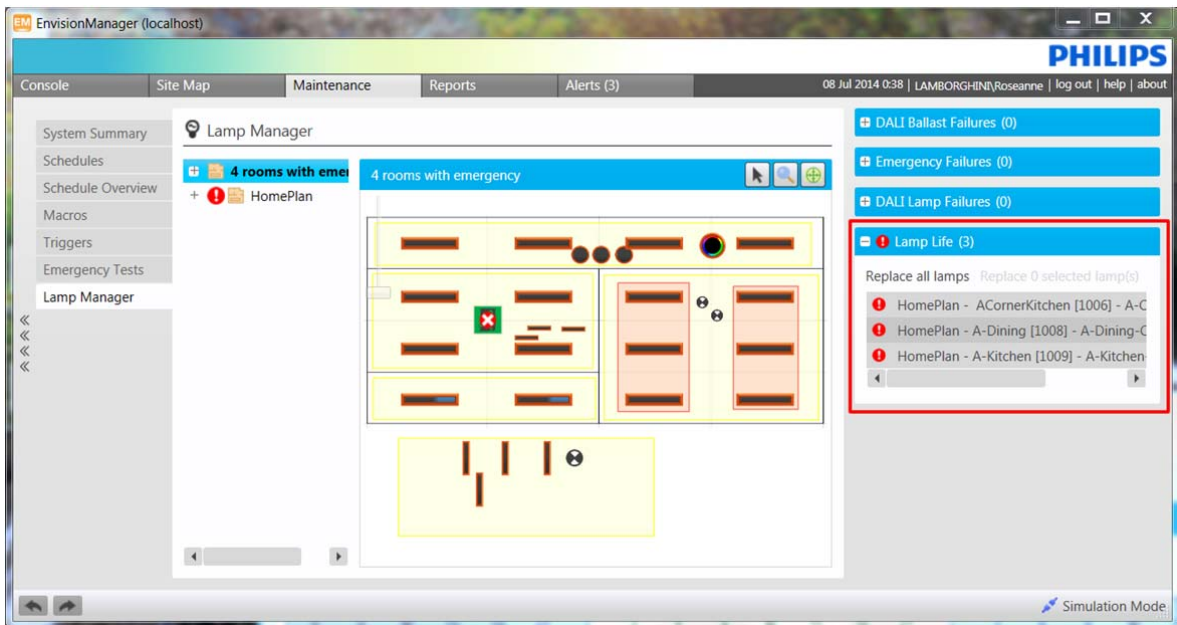
Lamp life is configured during commissioning, either as a default value based on the lamp type, or manually according to manufacturer specifications and/or site requirements. EnvisionManager checks this value against the recorded runtime of each lamp and reports on lamps that are nearing or past the end of their expected lifespan. This allows for preemptive maintenance to ensure consistent lighting performance.

► Demonstrating Overlife lamp replacement:

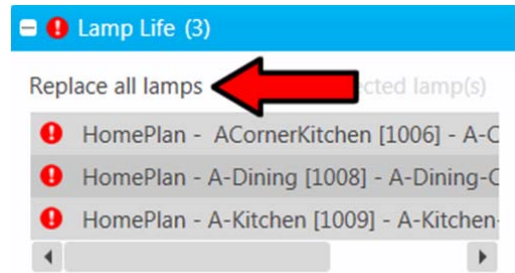
1. In the Simulation Tool window, move the Overlife Fixtures slider to trigger the required number of lamp life errors.



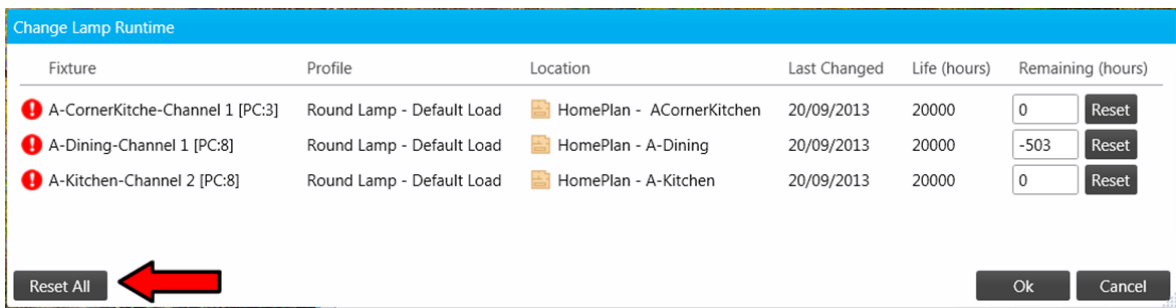
2. In EM, navigate to Maintenance → Lamp Manager. The overlife lamp alerts are displayed in the Lamp Life box in the right-hand column. Clicking on each entry will go to the affected lamp on the map.



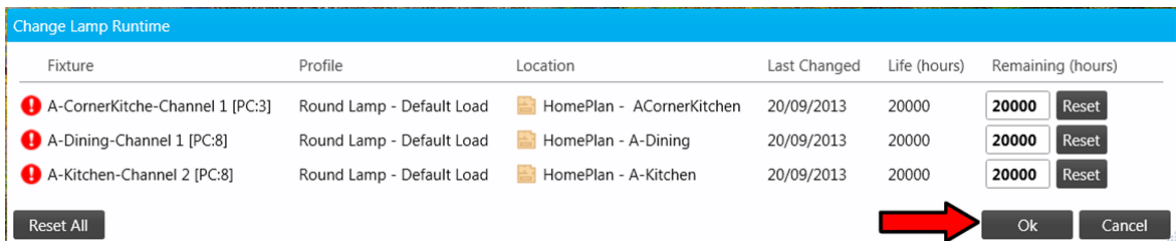
- Click Replace all lamps to open the Change Lamp Runtime dialogue box. In a real setting, you would do this after the physical lamps had been replaced.



- To reset all replacement lamps to their default Life setting, click the Reset All button. If for some reason a lamp requires a custom lifespan, manually enter a new value in the Remaining (hours) textbox.



- Click Ok to save the new settings and close the dialogue box.



- The Lamp Life field will now show zero faults.



- Rest the Simulation Tool slider to zero.



5.5 DyNet Network Faults

EnvisionManager's alert/alarm functionality makes it easy to see at a glance when one or more devices have gone offline. Although rare, in the event of a fault with the DyNet network (e.g. damaged cable or equipment failure), several devices may go offline at once, resulting in a flurry of simultaneous alerts. These are displayed under the Alerts tab in EnvisionManager.

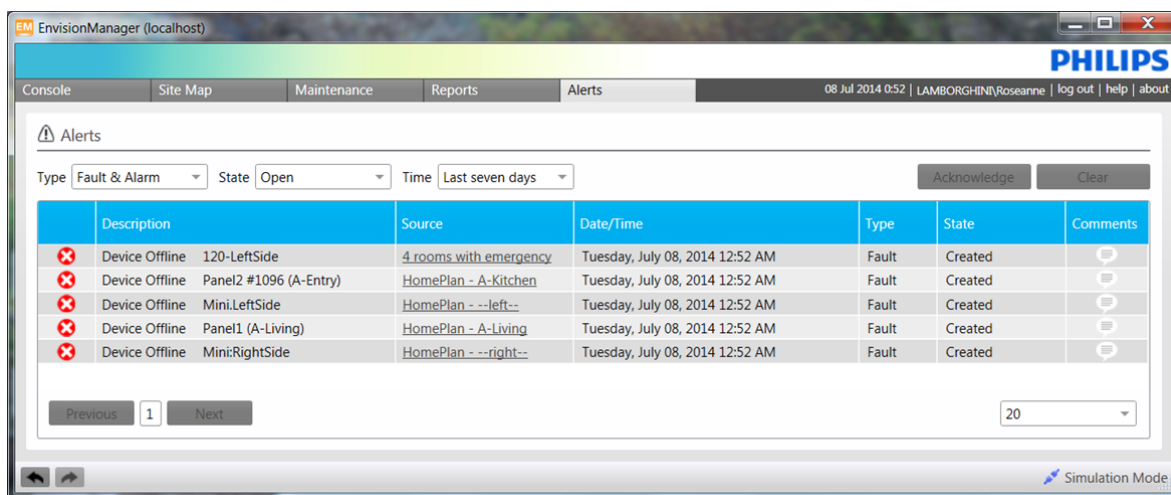
Real-life troubleshooting of network issues is outside the scope of this document. This feature is included to demonstrate EnvisionManager's diagnostic alert functionality.

► Demonstrating the effect of a DyNet network fault:

1. In the Simulation Tool window, click the Simulate DyNet network fault button. The button will turn red to indicate that it is active, and five DyNet devices will go offline.



2. In EM, click the Alerts tab to see which devices are offline. To view the location of a specific device on the Site Map, click the link in the Source column.



3. Click the Simulate DyNet network fault button in the Simulation Tool again. The alerts will self-clear and the Site Map will update as the devices come online again.



5.6 DALI Network Faults

A DALI network fault (e.g. damaged cable or equipment failure) results in multiple DALI devices going offline. This simulated fault affects all devices on a MultiMaster controller, triggering alerts in EnvisionManager.

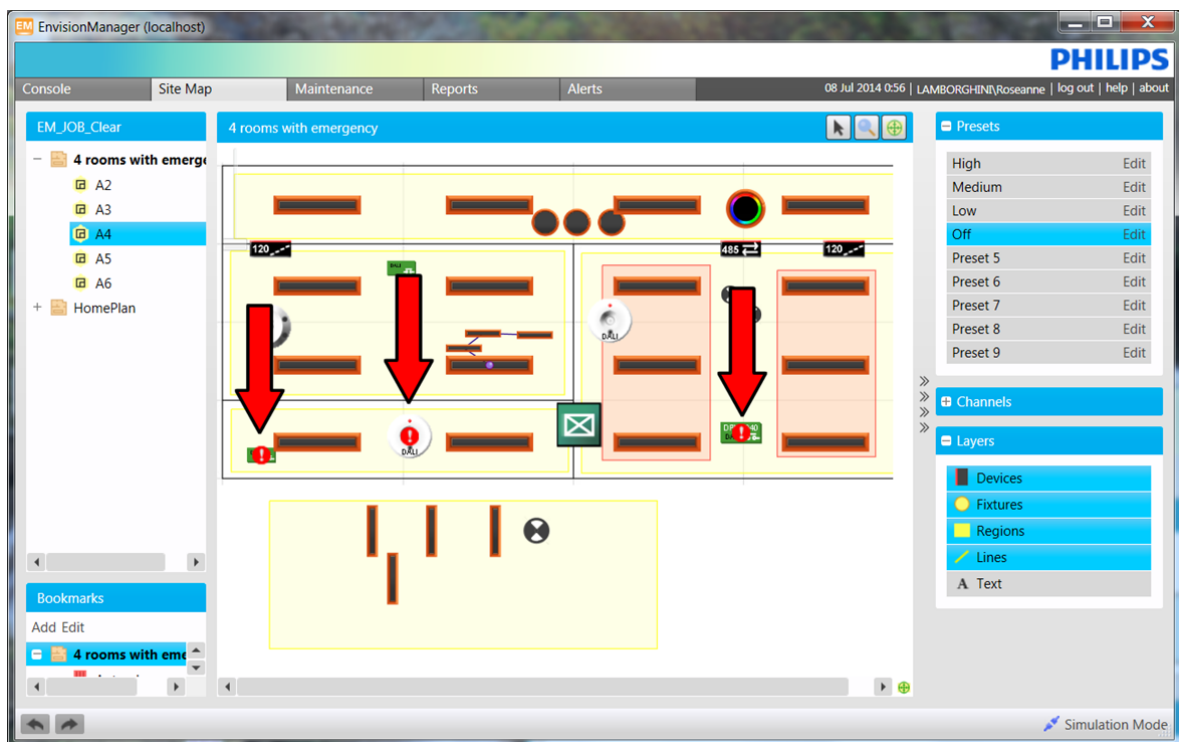
Real-life troubleshooting of network issues is outside the scope of this document. This feature is included to demonstrate EnvisionManager’s live status reporting functionality.

► Demonstrating the effects of a DALI network fault:

1. In the Simulation Tool window, click the Simulate DALI network fault button. The button will turn red to indicate that it is active, and all devices on one DALI MultiMaster controller will go offline.



2. In EM, click the Site Map tab to see which devices are offline.



3. Click the Simulate DALI network fault button in the Simulation Tool again. The faults will self-clear and the Site Map will update as the devices come online again.



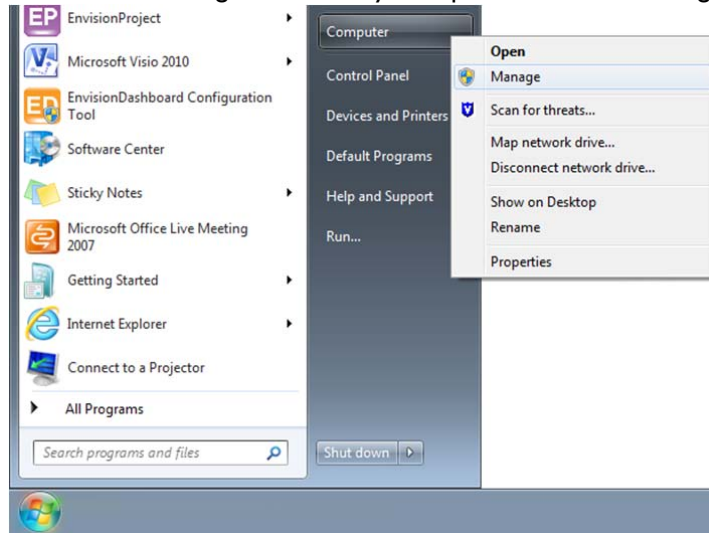
6 Frequently Asked Questions

What user rights do I need to run the Simulation Tool?

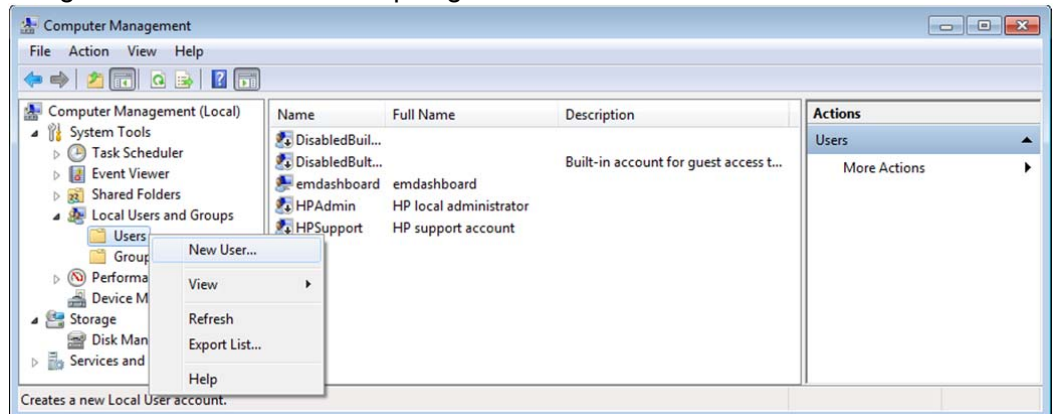
A user account with local admin rights is required to run EnvisionManager. In some cases there may be an issue using a domain account (e.g. CODE1) when the machine is not connected to the Philips network, or when the user account has been removed from the EnvisionManager Configuration tool. In these cases it is recommended to create a local admin account.

► Creating a local admin account (this must be performed by an existing admin account):

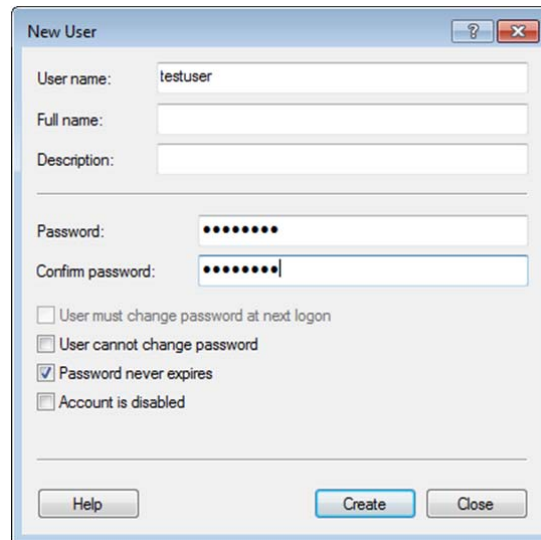
1. Click Start, then right-click on My Computer and select Manage.



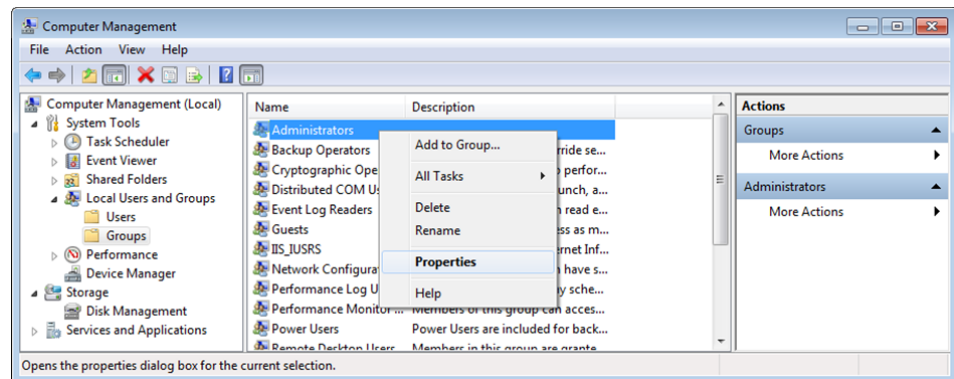
2. Navigate to Local Users and Groups, right-click Users and select New User...



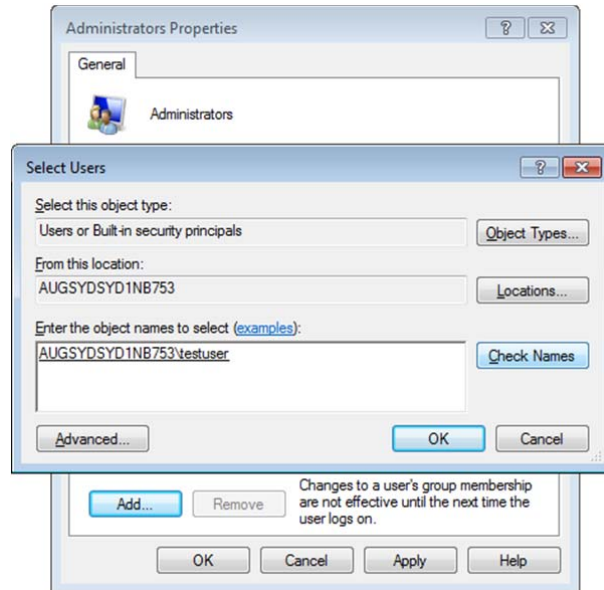
3. Enter a User name and Password, and ensure that only the “Password never expires” checkbox is ticked before clicking the Create button, then the Close button.



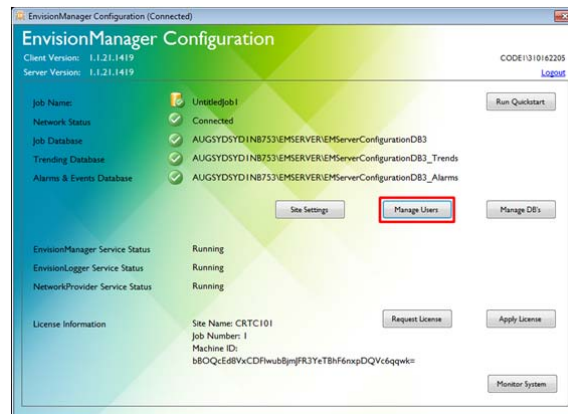
4. Navigate to Local Users and Groups → Groups, right-click on Administrators and select Properties.



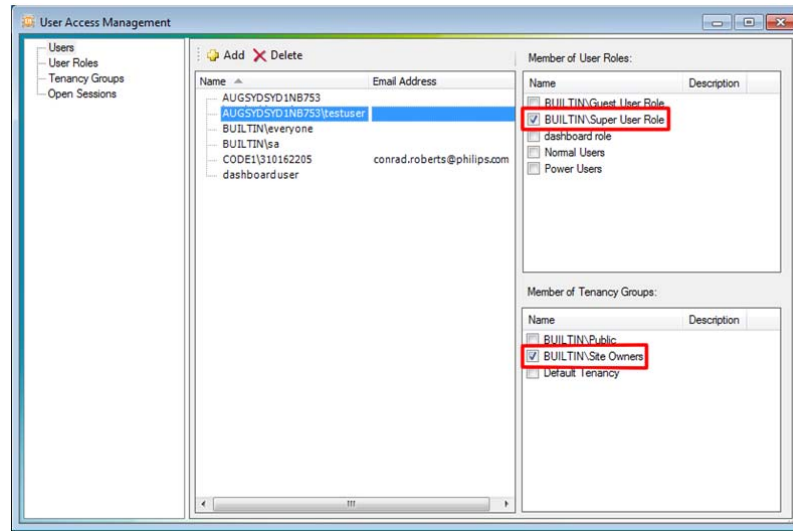
5. Add the user to the Admin group – set Locations to the computer name, then enter the account name and click the Check Names button, then click the OK button.



6. In the EnvisionManager Configuration tool, click Manage Users → Add.



7. Ensure the account has the BUILTIN\Super User Role and BUILTIN\Site Owners checkboxes ticked.






If you are unable to perform this procedure yourself, contact your IT administrator to ensure that you have the required rights on your machine.

Can I make changes to the job file in EnvisionProject?

Yes, but please note that the job file must only be edited by a certified commissioning engineer to ensure that the quality of the project is maintained.

Before making any changes to the job file, the EnvisionManagerServer process must be stopped. After the changes have been saved, the process must be manually started again.

1. Press Ctrl+Shift+Esc to Access the Windows task Manager.
2. Click the Services tab, then click the "Services..." () button in the bottom right corner.
3. In the Services window, select  EnvisionManagerServer, then click "Stop the service" in the left column.
4. Make the required changes to the job file in EP.
5. In the Services window, select  EnvisionManagerServer, then click "Start the service" in the left column.
6. Load the Simulation Tool, open the job file, and load EnvisionManager as per the procedure in Chapter 1.

Where can I learn more about EnvisionManager and EnvisionProject?

The following documents are available from Philips Dynamite on request:

- EnvisionManager Installation Guide
- EnvisionManager User Guide
- EnvisionProject Quick Start Guide
- EnvisionProject Training Guide