Introduction

The EC2 Explorer Experience is a self-serve kiosk that simulates wind and reflective glare conditions. Key features that can aid the associate/customer in making a decision on their sunglass purchase.

This manual will explain the various hardware and software component of the EC2, as well as how to turn the kiosk on/off along with basic troubleshooting solutions.

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Hardware Components

Primary Touchscreen Display

The Primary Display is the large LCD TV on the front of the kiosk, which is also the only interactive touchscreen for the EC2. This display should arrive with its own remote control.

Wind Simulator

The Wind Simulator is composed of two wind ducts below an angled mirror. The Wind Simulator has been programmed to sync with each individual video, which should be activated during Video Playback. The user will not be able to control the strength of the wind.

Wind Simulator

Reflective Glare Simulator & Secondary Display

The Reflective Glare Simulator includes built-in lights, as well as a Secondary Display. The user will be able to activate this feature during scene playback or from the Experience Menu. During idle periods, the Secondary Display will also showcase video content. This display should arrive with its own remote control.

Reflective Glare Simulator

Mesh Cover

The Mesh Cover is a removable cover that hides the PC and Volume Control Box.
To remove, hold the Mesh Cover by the sides and lift up to align the screws with the keyholes. Once aligned gently pull outwards. Please completely remove the Mesh Cover to avoid unnecessary stress to the hanging screws.

Some EC2 Units have a hinged Mesh Cover as opposed to the hanging screw mount. With these units be careful not to raise the cover higher than 45 degrees (parallel with the floor).

Removing the Mesh Cover

Volume Control Box

The Volume Control Box is a TOA Sound Amplifier and includes a power button as well as a Master Dial that controls the overall volume of the EC2 kiosk experience.

Volume Control Box

PC

The PC is an HP Z30 Desktop computer that runs the Explorer Application. This is where you will find the Power Button (Blue) for turning the EC2 kiosk on/off.

Mesh cover removed showing the PC, Volume Control and subwoofer

Software Components

Explorer Application

The Explorer Application is the name for the software that powers the EC2 kiosk experience. It has 3 primary states: the Startup Animation, the Attract Loop Animation and the Experience Menu. If the Explorer Application is not interacted with for 3 minutes, the volume of the Attract Loop is automatically lowered.

Startup Animation

This is the animation that plays once the EC2 is rebooted, or if an employee double taps the upper left corner of the Primary Display from the Experience Menu. The animation describes how the user should interact with the kiosk, during which the Wind Simulator should briefly be activated and the Reflective Glare Simulator lights toggled on and off. If this doesn't happen, take a look at the Troubleshooting section in the User Manual for next steps.

Attract Loop Animation

The animation plays immediately after the Startup Animation is complete, or if the Experience Menu is not interacted with for 10 minutes. This animation invites the user to begin their interactive kiosk experience by tapping the Primary Display. When the Attract Loop Animation is playing, the Secondary Display will play snippets of Video Content.

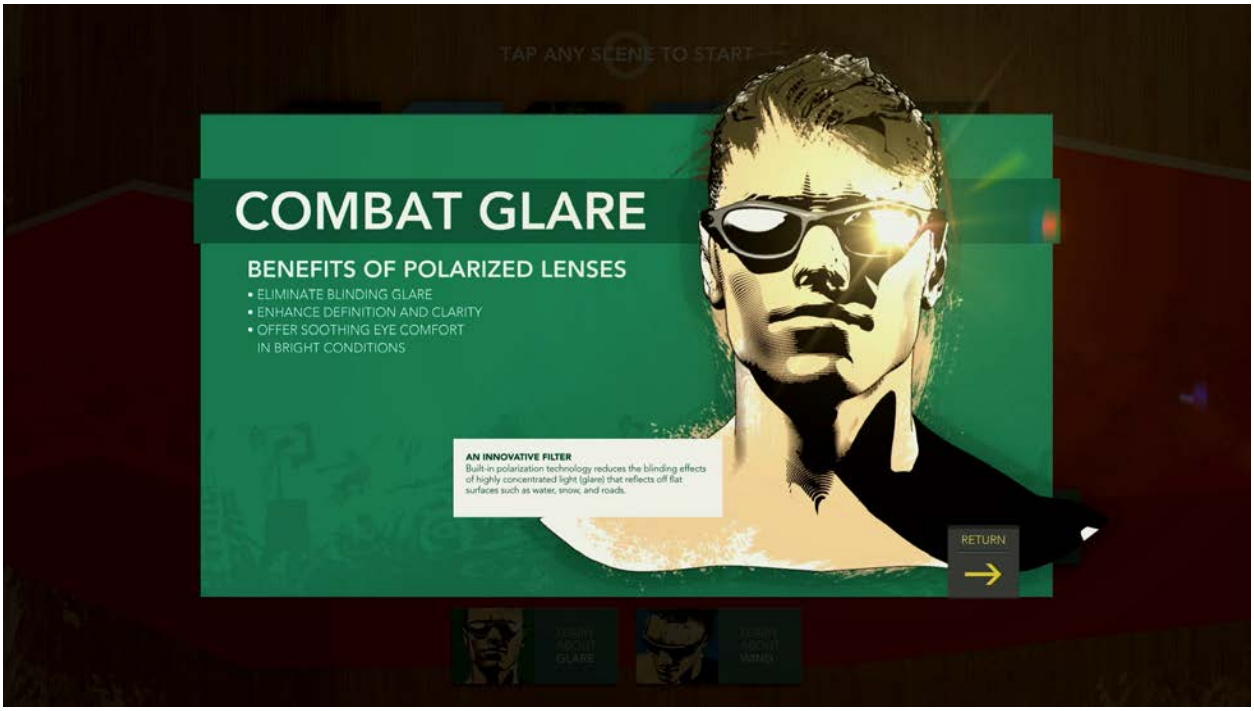
Primary Display displaying the Attract Loop

Experience Menu

Once the user taps the Primary Display during the Attract Loop Animation, the Experience Menu will appear to provide a selection of Video Scenes. Users will be able to use Arrow Buttons to navigate to their preferred scene, which will initiate the video along with available Wind or Reflective Glare experience.

Primary Display displaying the Experience Menu

If the user wants to understand the benefits of Wind Protection or Reflective Glare Reduction before starting their interactive video experience, they will find these options on the Experience Menu as well. However, whereas the “Learn About Glare” button will temporarily activate the Reflective Glare Simulator during its explanation, the “Learn about Wind” button will not do the same for the Wind Simulator. Wind Simulation is only available during Scene playback.



Primary Display after selecting "Learn about Glare"

Primary Display after selecting "Learn about Wind"

Scene Playback

Once a Scene is selected, a video will play on both the Primary and Secondary Displays, however the screen on the Secondary Display will be darkened until the Glare Simulator is activated. In addition, each scene has a Wind Simulation pre-programmed to sync up with the video content.

Primary Display playing the Biking Scene. The "Experience Glare" button is highlighted in red.

During scene playback the user has the following options:

Experience Glare/Wind

When the "Experience Glare" button is tapped the Primary Display instructs the user to look below at the activated Reflective Glare Simulator. The user may return to their video/wind simulation experience by tapping the "Return to Wind Demonstration" button.

Primary Display during Reflective Glare Simulation

Pause

Touching the Pause button will put the video/wind simulation on hold until the user taps the button a second time to reactivate the experience.

Home

Tapping the Home button returns the user to the Experience Menu. Any Wind or Reflective Glare Simulations will be deactivated.

Turning the EC2 Kiosk ON/OFF

Turning the kiosk on and off should happen on a daily basis.

How to Turn the EC2 Kiosk On

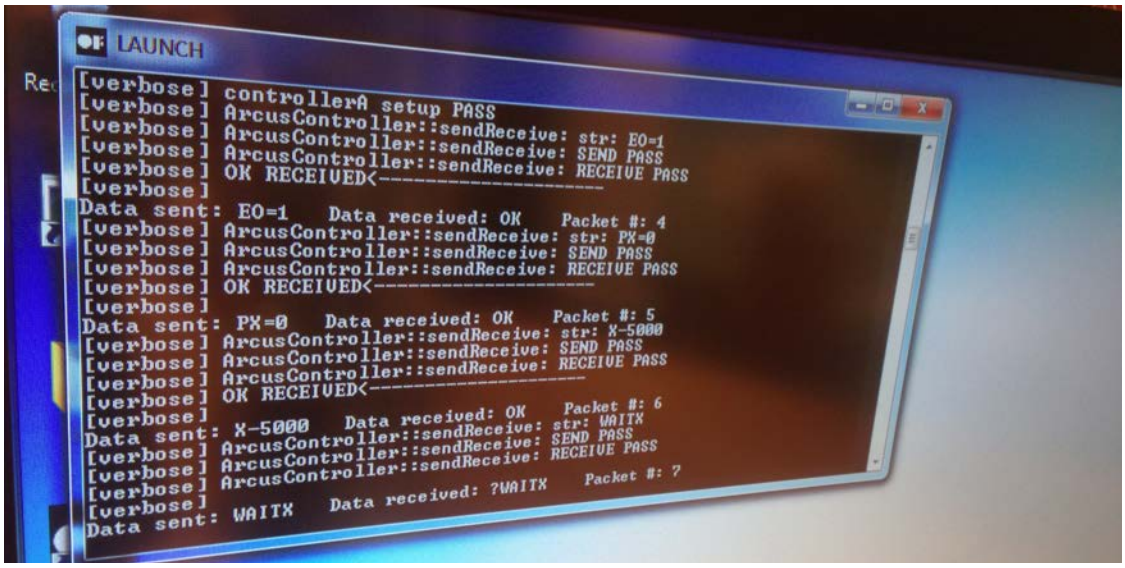
1. Press the power button on the HP Z30 Desktop PC.
2. Each display should have its own remote control. Use the remotes to first turn on the Primary display followed by the Secondary Display. Alternatively, with the Primary Display you may use the power button located on the back of the display.

Primary Display power button location

The following sequence should appear on the Primary Display:

a. Windows starts up, automatically logs in and opens the Launcher Application.
b. The Launcher Application checks the connection to the Wind and Reflective Glare Simulators and resets them to a neutral state. At this time you may hear the dampers close in the Wind Simulator.
c. The Explorer Application is launched, initiating the Startup Animation and followed by The Attract Loop Animation. (See the Software section of this User Manual for more details about these screens).

Note: If the Wind or Reflective Glare Simulator components are not working properly (e.g. internal network or hardware failure), the Explorer Application will still launch; however, you should contact technical support to make sure your EC2 kiosk is fully operational. See the Troubleshooting section of the User Manual for more detail.



Launcher Application during startup

How to Turn the EC2 Off

Turning off the EC2 is a very simple process—simply press the power button on the front of the Desktop PC. During shutdown, the Explorer and Launcher applications will close, Windows will shut down and the PC will power off. The Displays should turn off automatically. If the Displays remain on use the provided remote controls to turn them off.

Note: Be sure to wait until all video/glare simulations are finished playing before pressing the power button, otherwise the Wind or Glare Simulators could remain on after the EC2 is shut down. If this happens, you can often remedy the situation by turning the PC back on, checking to make sure all video content has finished playing, then turning the PC off again.

Troubleshooting

The following are a list of common troubleshooting scenarios. If your question is not answered below, or if you need more information to understand these steps, check with your manager or contact technical support at (844) 784-2701 or Luxottica.Support@Pro-MotionAmerica.com.

Fans don't turn on temporarily during the Launch Application	Contact Technical Support
Lights or Fans remain on after shutdown	Restart the EC2 and then shut down again. The Fans and Lights are reset during startup. If they remain on please contact Technical Support.
Fans do not activate on "Learn about Wind" screen however Lights are activated when "Learn about Glare"	Intended Behavior
Content appears cropped or stretched	Monitors should be a 1920x1080 resolution. Contact Technical Support for instructions on changing screen resolution.
No Picture on Display	Make sure the Monitors are turned on via provided remote controls.
Explorer Application buttons are not responding or "seem off"	Try recalibration the Touch Screen. See "Touch Screen Calibration" Section for details

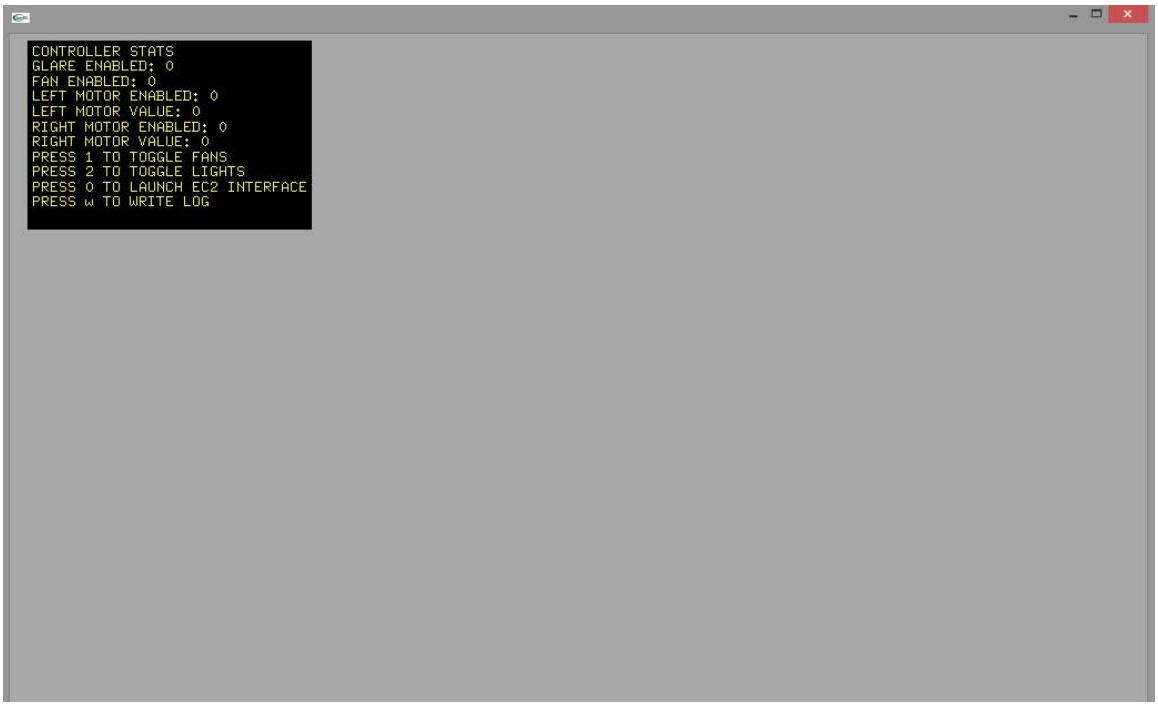
Touch Screen Calibration

If you are having issues with buttons being missed or inaccurate touch points you may be asked to calibrate the screen.

1. Plug in a Keyboard and Mouse to the front USB ports of the PC. Make sure the Touchscreen is still attached. There are additional USB ports on the back of the PC if the front USB ports are in use.

2. Using the Keyboard, Press ALT+F4 to close the Explorer Application.

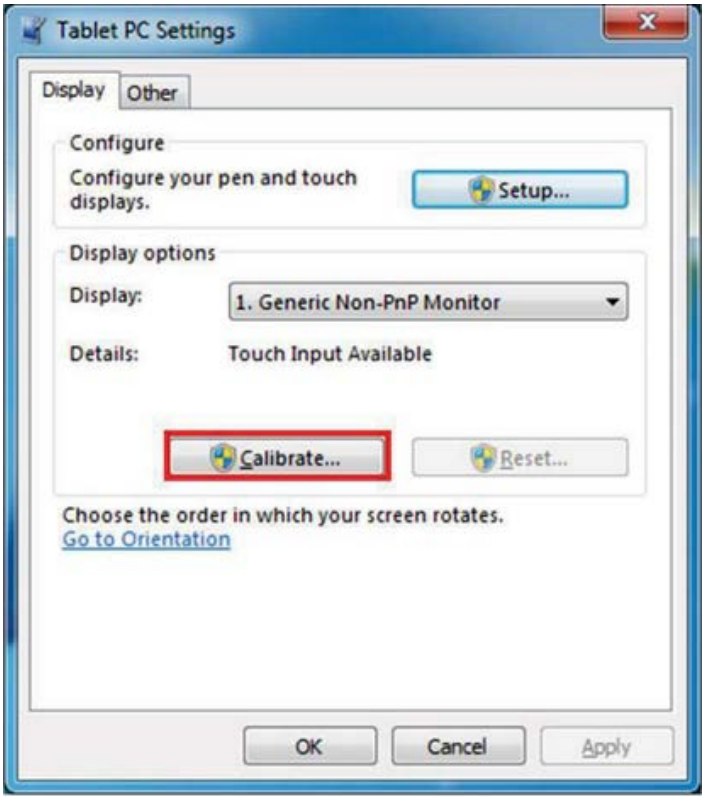
3. Using the mouse, close the Launcher Application (Gray Window) via the Window Close button (Red X)



Launcher Application, Use the Red X to close before Calibration

4. The Windows Desktop should now be displayed. Open the Tablet PC Settings using the path: Start Menu → Control Panel → Hardware and Sound → Tablet PC Settings

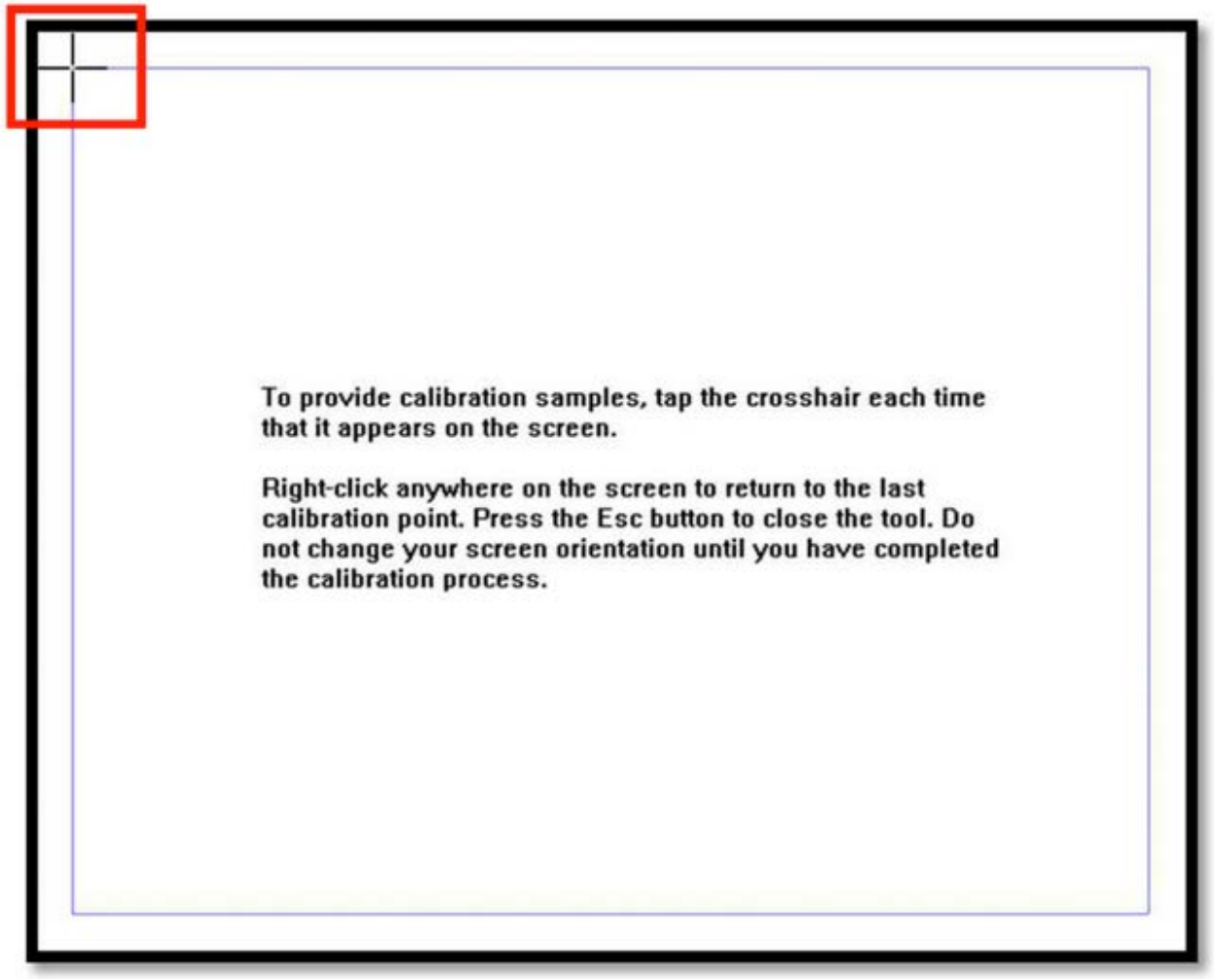
5. Select the Display Tab and click the Calibrate button. If the Calibrate Button is unavailable (grayed out) select the next monitor with the “Display: “ drop-down menu.



Tablet PC Settings window and Calibrate button

6. If prompted, “Do you want to allow the following program to make changes?” select “Yes”.

7. A Calibration sequence will start. Tap each crosshair when it appears. Press ESC to stop the Calibration process.



Primary Display during Calibration

8. Once the calibration sequence is complete, select “Yes” when prompted to save Calibration Data.

9. Shutdown the EC2 by pressing the Power Button on the PC. Once shutdown is complete, start it again by pressing the PC Power Button.

Overview of Video Scenes

Below are the current scenes as of 8/1/2015

TITLE	DURATION	
ATV	1:37	
Boating	:47	
Mountain Biking	1:15	
Fishing	:50	
Skiing	1:00	

Cycling	1:04	
Running	1:14	
Motorcycle Riding	1:15	
Mountain Biking (2)	1:15	

EC2 Technical Addendum

In addition to the User Manual, the following sections provide additional detail to assist Technicians during assembly and maintenance of an EC2 unit.

Table of Contents

EC2 Software

The EC2 Explorer Experience (“EC2”) is composed of multiple applications and components that work together as a system. The system is typically pre-configured by the software developer before installed at the store location.

This section will describe the components involved and expected behavior. For user flow descriptions, see the Software Components section of the User Manual.

Launcher Application

The Launcher Application (also known as the Arcus Bridge) is the first component in the chain of responsibility. The Launcher Application's function is to:

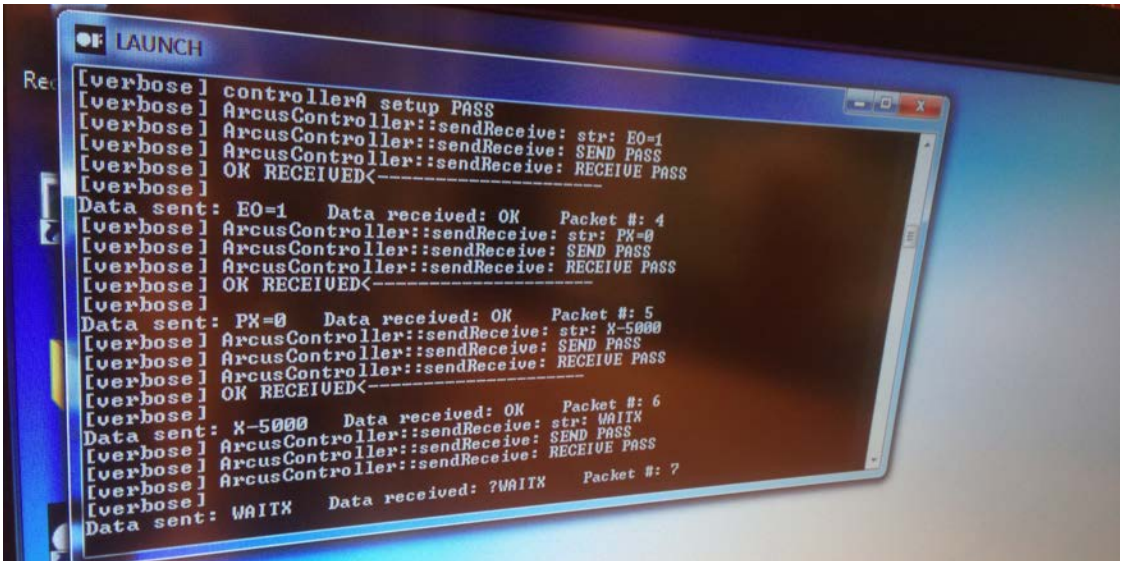
- Check for the network availability of the Arcus Controllers that control the Fans, Lights and Damper of the Glare/Wind Simulators.
- Reset the states of the Lights and Fans on Startup.
- Manage communication of the Explorer Application and Arcus Controllers via TCP sockets.
- Manage the EC2 software launch sequence on system startup.

The Launcher Application executable (arcusBridge.exe) resides in the *bin* folder on the Windows Desktop. A shortcut named "LAUNCH" is also on the Desktop and placed in the Windows Startup Items.

When Windows is started, the Launcher Application opens automatically and goes through the following sequence:

1. Looks for the configuration file *bin/Data/LauncherApp.ini* for configuration parameters. See Configuration Using LauncherApp.ini section for more detail.

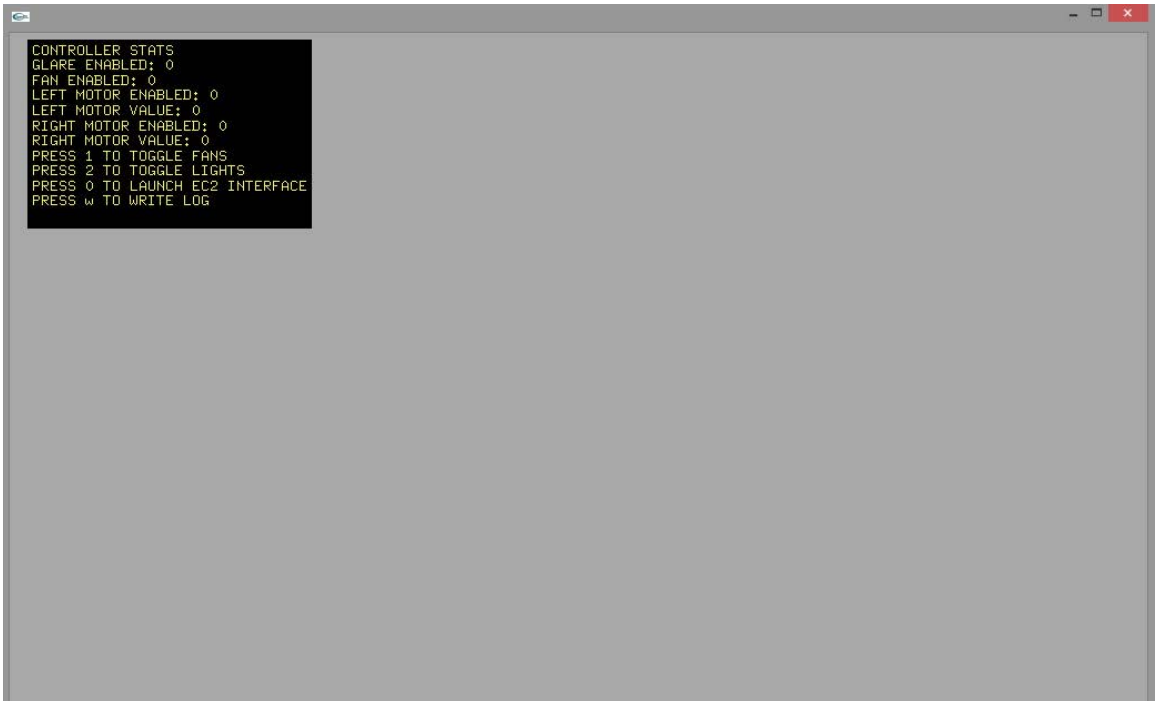
2. Launches a Command Prompt and tests communication with the Arcus Controllers (default: 192.168.1.249 and 192.168.1.250) with a PING command.



Launcher Application PING sequence

3. Closes the Dampers (audible), sends an OFF command to the Lights and Fans and opens the Launcher Application Window.

Note: The Windows Firewall must be disabled in order for the Launcher Application to properly communicate with the Arcus Controllers. See System Configuration section for more detail.



Launcher Application Window that is opened after the PING sequence

4. Starts the Explorer Application.

Note: In earlier versions of the Launcher Application the Explorer Application will launch even though the PING command is unsuccessful.

Configuration Using LauncherApp.ini

The LauncherApp.ini file provides a way to change values that the Launcher Application uses to communicate with the hardware. This is typically not used, but may be helpful during troubleshooting.

LauncherApp.ini is located in the *bin/data* folder on the Windows Desktop (full path: *bin/data /LauncherApp.ini.config).* By default it is named *LauncherApp.ini.config* in order to prevent it from being used. Renaming it to *LauncherApp.ini* will allow for it be used for configuration on system startup.

LauncherApp.ini is a simple text file (editable with Notepad) with the following editable parameters:

ipForControllerA 192.168.1.249
ipForControllerA is typically the Arcus Controller connected to the Fans

ipForControllerB 192.168.1.250
ipForControllerB is typically the Arcus Controller connected to the Lights

portForControllerA 5001
5001 is the Winsock port used for Controller B

portForControllerB 5001
5001 is the Winsock port used for Controller B

tcpPort 11999
11999 is the port number used to communicate from the Explorer Application to the Arcus Bridge. *Note: Changing this will have no effect.*

doLogCommands false
If set to *true* a verbose log will be written to *bin/data/command.log.* Be aware that if left as true it could cause system slowdown (and possible crashes) as it can grow very large. This should only be used when advised by a software/system developer.

When editing make sure each key/value is separated by a single space and one key/value pair per line.

Explorer Application

The Explorer Application is an Adobe AIR application, as well as the second piece in the chain of responsibility and the primary interface for the user. Once launched by the Launcher Application it goes through the following sequence:

1. Looks for a folder called *EC2* in the User's *Documents* folder.
2. Reads the assets enclosed in the *EC2* folder for video and wind data.
3. Launches the interface on both the Primary and Secondary Display.
4. Establishes a connection to the Launcher Application and sends commands to briefly start/stop the fans and toggle on/off the lights.
5. The Startup Animation begins playing as the Experience Menu is displayed once the Screen is tapped.

Note: The Windows Firewall must be disabled in order for the Explorer Application to properly communicate with the Launcher Application/Hardware. See System Configuration section for more details.

System Configuration

In order for the EC2 Software to work properly, a specific Windows 7 configuration is required. This is typically performed for you when the EC2 PC is pre-configured by the software developer.

Windows Auto Login

By default, the system is configured to login to Windows automatically using the credentials:
User: EC2
Password: apex

Windows Updates

The latest Windows updates are installed during the configuration process and then disabled. The system is not to be connected to the Internet or Local network due to the low security configuration. This also prevents Windows interfering with update prompts.

Network Configuration

The PC is assigned a static address of 192.168.1.10 and is connected via Ethernet to the local hub. Only local network communication is used on the EC2. The EC2 should never be connected to the store's local network or the Internet.

The Windows Firewall is also disabled in order to allow the applications to communicate with the hardware. This is typically done for you, but may need to be re-disabled in case a system restore is somehow performed.

Audio Configuration

Audio levels should be set to 100% and the Default Sound Device as the Speaker output (as opposed to HDMI).

Display Resolution

Both the Primary and Secondary Display should be set to 1920x1080 resolution. Screensaver should be disabled.

Power Saving

Windows Power Saving should be set to custom and "Never" selected as the option for both Display and Power.

Adobe AIR

Adobe AIR version 12 is required for proper functionality. Later versions may introduce bugs or unintended behavior. A pre-configured system will have this already performed as well as AIR update prompts disabled.

Startup Items

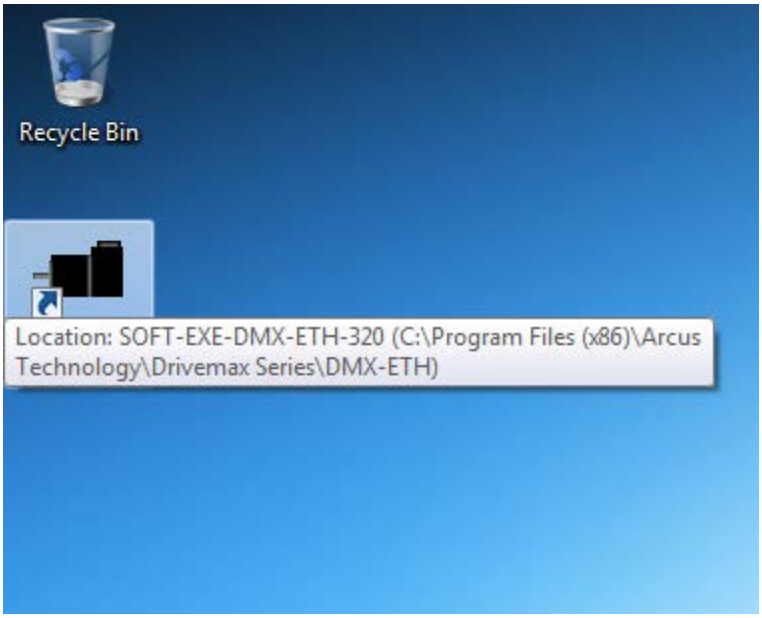
A shortcut to the Launcher Application is placed in the *Startup Items*.

Configuring the Arcus Controller for the EC2

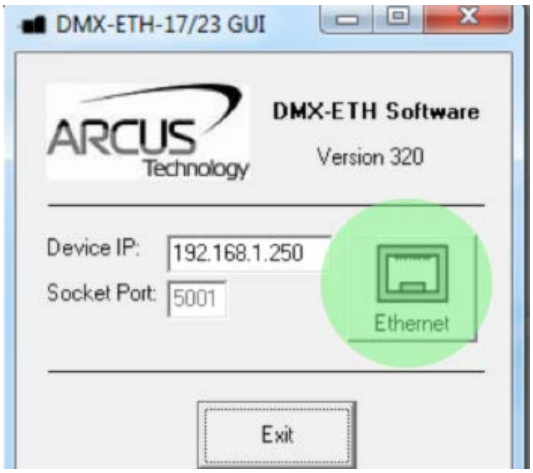
If an Arcus controller needs to be replaced you may need to reconfigure it. A Keyboard and Mouse are necessary to perform the following steps.

IMPORTANT: Disconnect the Ethernet from the Arcus Controller that is connected to the **LIGHTS**.

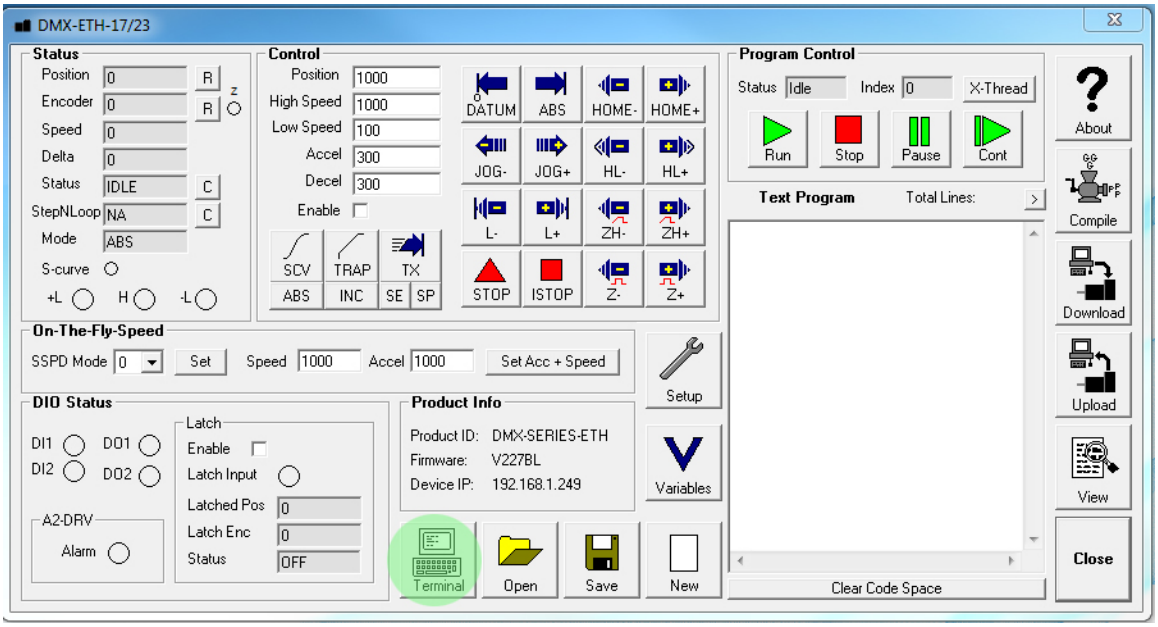
The system will start the EC2 Experience automatically. You will need to close these programs. Hit the ESC key and close all the windows by clicking the Close/Red X button.



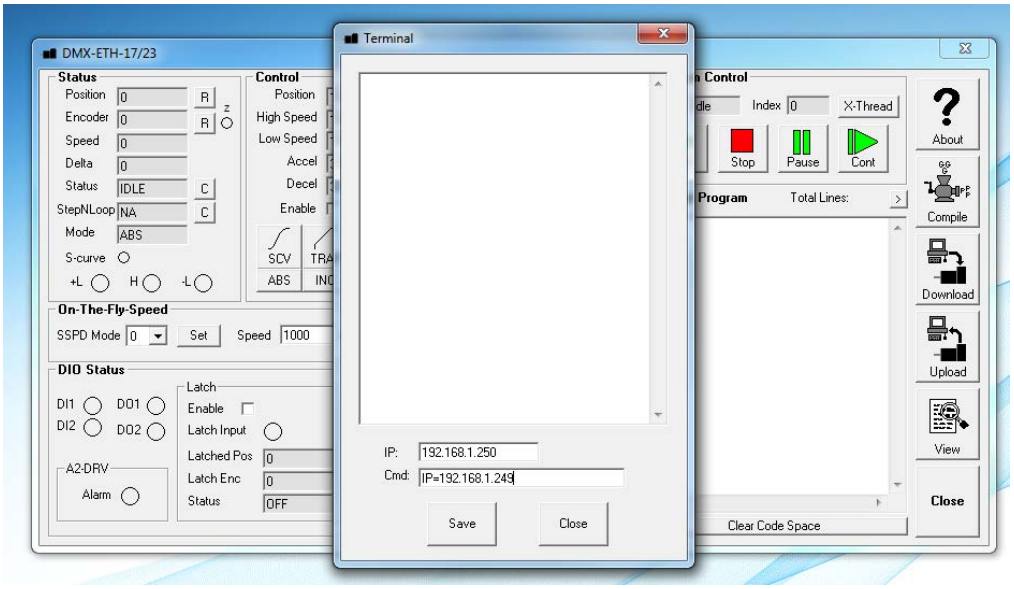
1. On the Desktop will be this Icon – Double Click to start.



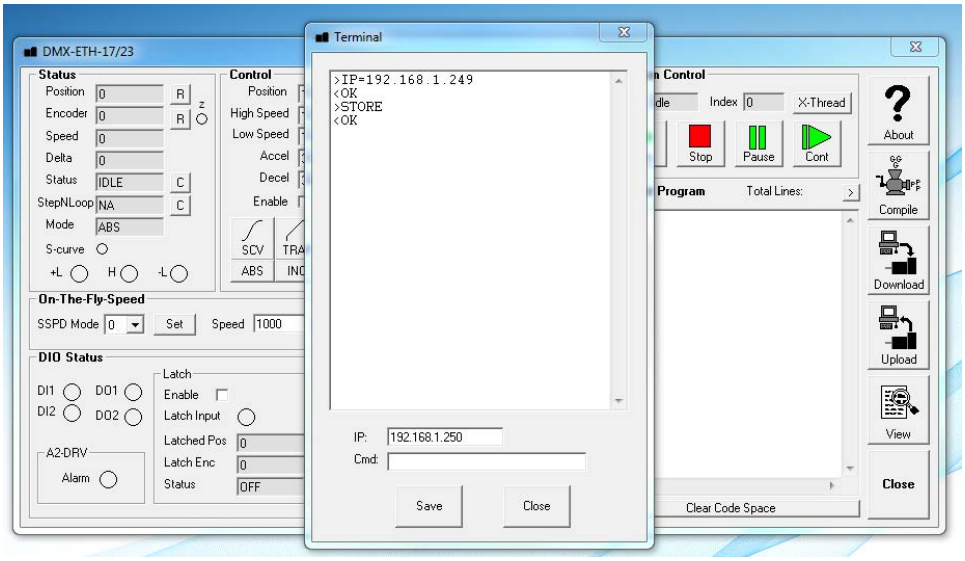
2. The DMX-ETH Software will start. Click Ethernet Button to continue.
Make sure the Arcus Controller that is connected to the LIGHTS is DISCONNECTED. If it is still connected you could possibly be programming the wrong controller!



3. Click the Terminal button.



4. The Terminal window will open.
Enter the following 2 case-sensitive commands into the *Cmd* field, hitting the ENTER key after each one.
IP=192.168.1.249
STORE
You should see *<OK* after each command like the following screen



5. Close the program. Cycle Power to the controller and reconnect the Ethernet to the other Controller (Lights).

Additional Troubleshooting

Either Lights or Fans are not working	Using command prompt use commands PING 192.168.1.249 PING 192.168.1.250 Both controllers must be available Make sure Network Adapter is assigned the static IP of 192.168.1.10
Lights or Fans remain on after shutdown	Restart the EC2 and check PING status in Terminal Window to see if communication to controller is failing
Content appears cropped or stretched	Monitors should be a 1920x1080 resolution.
System hangs on startup or shows HP logo and then goes black	Try using different HDMI ports for the Display connections
Explorer Application buttons are not responding or “seem off”	Try recalibrating the Touch Screen. See “Touch Screen Calibration” Section for details
Displays are swapped	The PC can require certain ports to be used for the Primary and Secondary.

List of Equipment (Pro-Motion add)

Wiring Diagrams (Pro-Motion add)