NFPA FIRST

User Manual

National Fire Protection Association

1.   Introduction

The NFPA Firefighters Incident Response Simulation Tool (FIRST) is a simulation designed to provide firefighters with a realistic and immersive training experience in responding to fires where Distributed Energy Resources (DERs) are present. This scenario focuses on responding to an electric vehicle (EV) fire inside a single-family home garage.

2.   Installation

2.1   System Requirements

Before starting the installation, ensure your system meets the minimum requirements listed below for optimal performance. The application will only work on computers running Microsoft Windows operating system - it is not compatible with Mac or other operating systems.

- Processor (CPU):
  - AMD Ryzen 5 2600 or
  - Intel Core i5-7400 (or equivalent)
- Graphics Card (GPU):
  - NVIDIA GTX 1050 Ti 4GB or
  - AMD Radeon RX 560 (or equivalent)
- RAM:
  - 8GB DDR4
- Storage:
  - 6 GB (SSD - Solid State Drive for faster loading times)
- Operating System:
  - Microsoft Windows 10 64-bit

## 2.2   Installing the Simulation

Note: At any point during these steps, you may encounter additional prompts – the type and frequency of these prompts depends on the security settings set by your organization. Answers to additional prompts should be informed by your organization's IT department.

1. Begin the installation process by downloading the executable file from the server. To download the file, click the DOWNLOAD NOW button on the website. The download may take several minutes to complete depending on your internet speed.

Vector Solutions and the NFPA in Partnership

THE NFPA'S NEW ENERGY SYSTEMS FIRE SIMULATOR TRAINING NOW AVAILABLE TO FIRE SERVICE

Please click here to download the .exe file, which features the NFPA FIRST Simulated Training Application for implementation.

DOWNLOAD NOW

NOTE: You may be prompted to select a location on your computer to save the file. We recommend you save the file in your *downloads* folder.

2. You must wait until the download is complete before beginning the next step. You can watch the progress of the zip file, by looking in the upper right-hand corner of your web browser. For Microsoft Edge, the download progress will look like the image below.
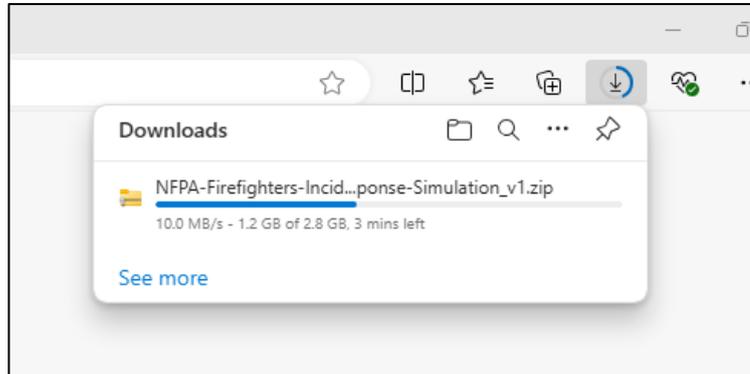

3. You can verify that the download is complete by observing the icon where you downloaded the file. If the icon looks like a blank sheet of paper, then the download is **not** complete. If the icon looks like a zipped-up folder then the download is complete, and you can continue to the next step.

If the icon for the download looks like this image, then the download **is not completed**.

If the icon looks like the image below, then the download **is completed.**
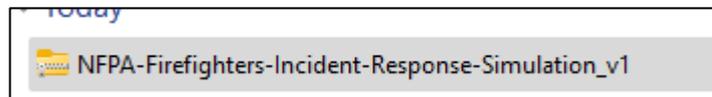
4. Locate the zip file on your computer and then right mouse click on it to access an actions menu. Within that menu, select Extract All.

NOTE: Once downloaded, the executable will likely be within your *downloads* folder.
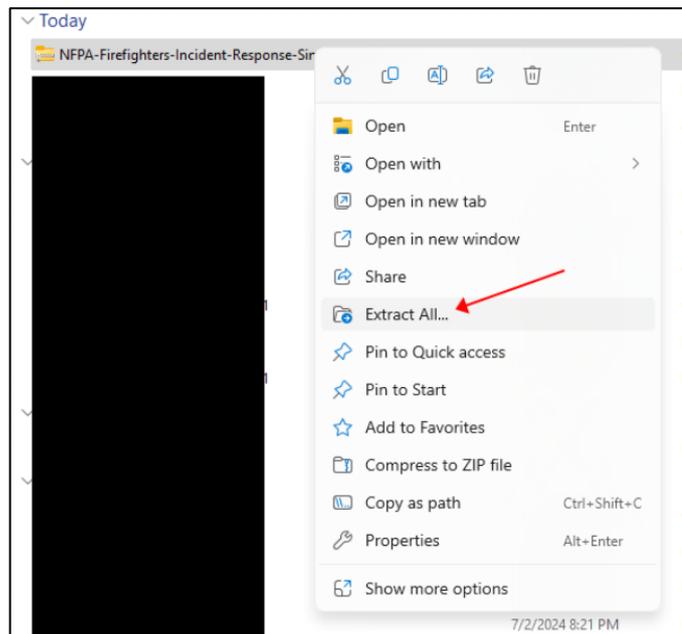
5. This will bring up the extraction wizard. Begin the extraction process by clicking the Extract button.
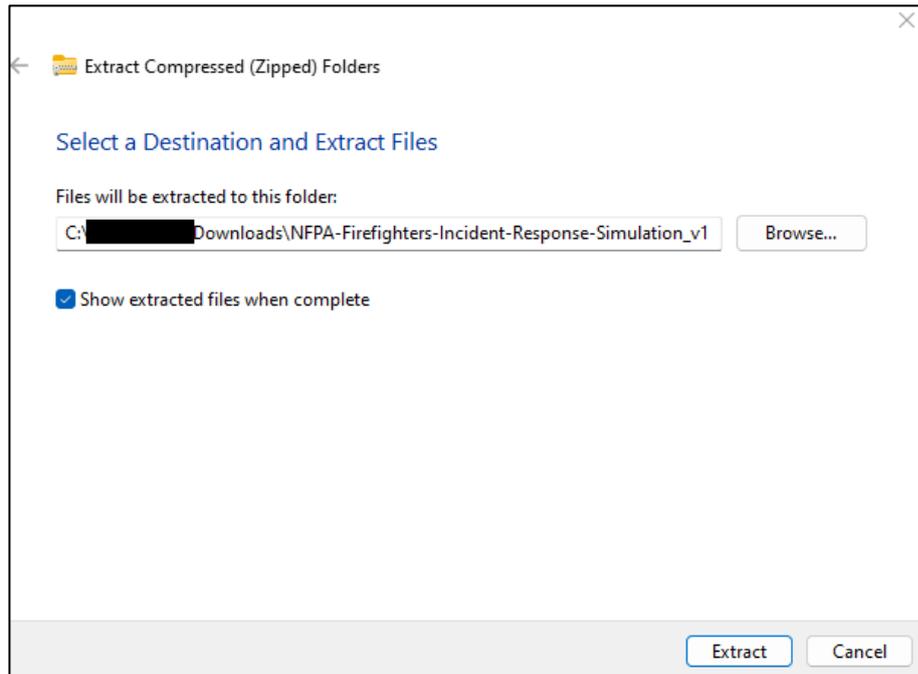
6. Once the extraction is complete, locate the newly created folder and double click to open it. The folder icon will have the same name as the .zip file but have a normal folder icon; see image below.
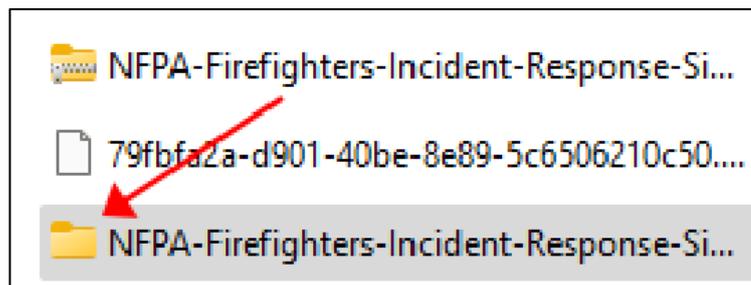

7. Inside the extract folder is the executable that will begin the process of installing the application on to your computer. Double click on that executable file.

    NOTE: Only double click once. It may take several seconds for the process to prompt you to the next step.
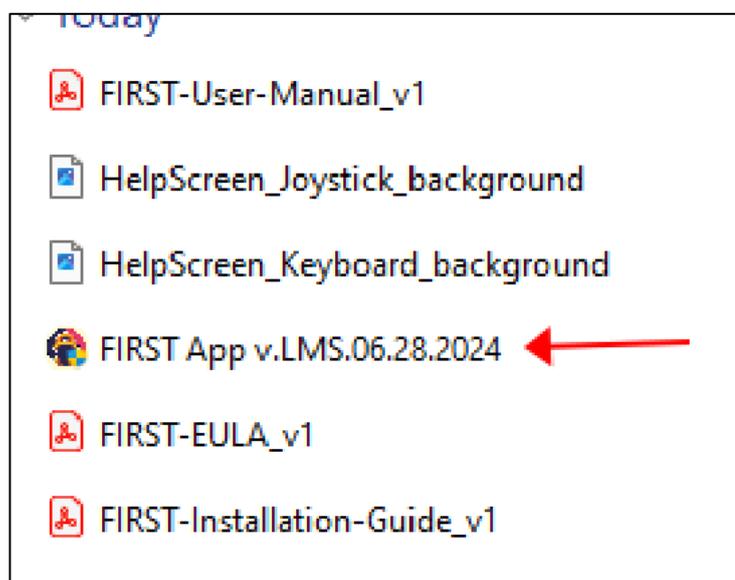
8. Once you double click the executable, you may be prompted with User Account Control asking if you want to allow an unknown publisher to make changes to your device. If this occurs, enter the User Name and Password of a User with admin control and select Yes.
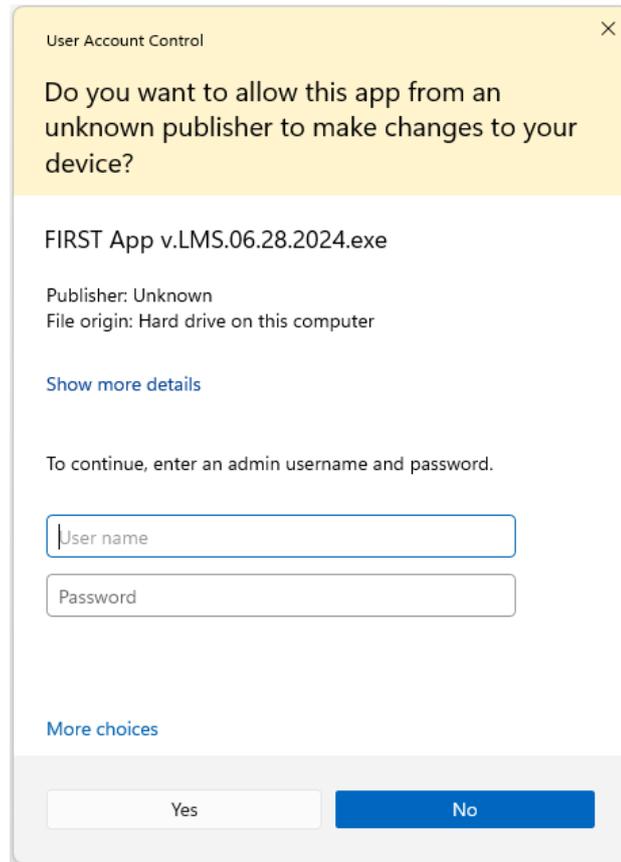
9. After completing the User Account Control prompt, wait a moment and a blue Windows protected your PC prompt will appear on your screen. See the image below. When this prompt appears, click the *More info* text to expand the available options.

10. After clicking the *More info* text, you will see a new Run anyway button. Click the Run anyway button to proceed with this step.
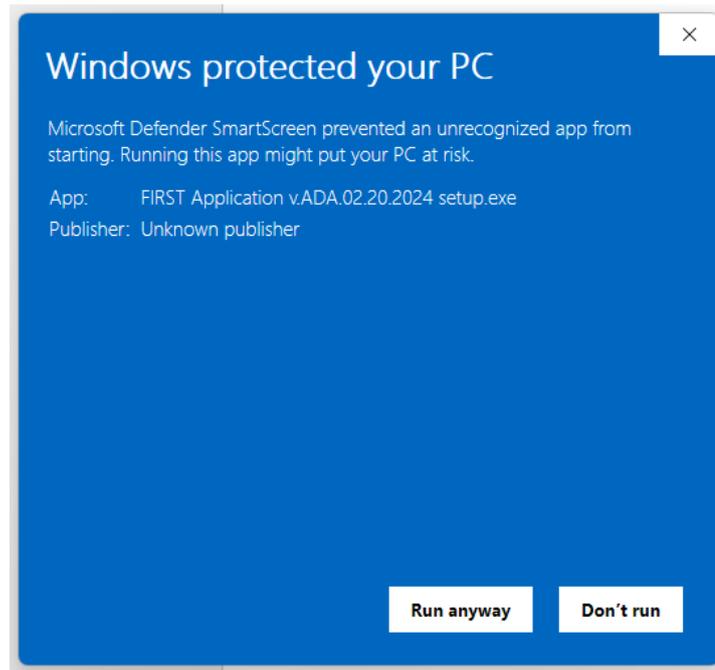

11. The first prompt of the extraction wizard will be the End User License Agreement. You must read through the agreement and if you agree, click accept. If you do not agree, click decline.

NOTE: You cannot continue through the installation process unless you read and agree to the EULA.
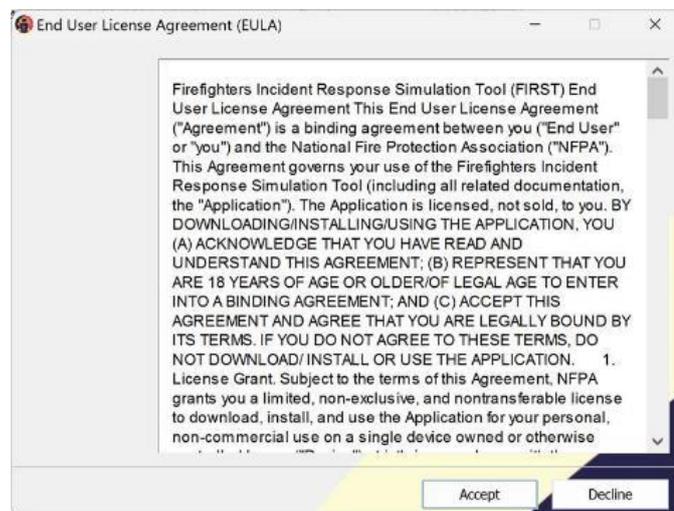
12. After clicking the Run anyway button, you will be prompted with the installation wizard. The installation wizard will guide you through the process of installing the FIRST application on your computer. You should see the following screen to begin the process.
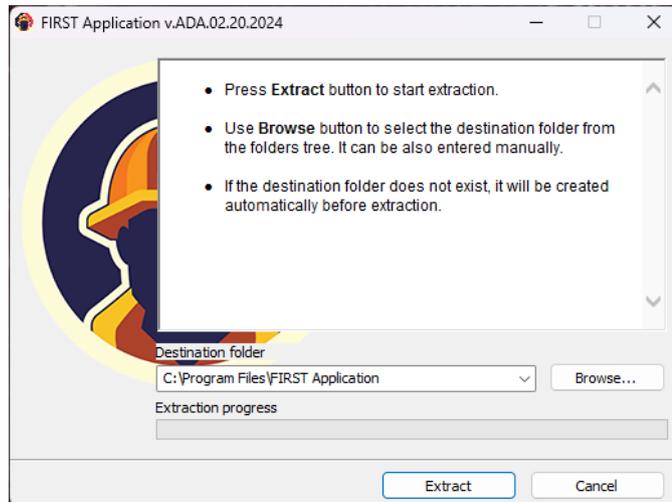

13. On this screen, verify your Destination folder location is correct. If it is not, click the Browse button and select the preferred Destination folder.

    NOTE: We recommend keeping the Destination folder as C:\Program Files\FIRST Application

14. After verifying the Destination folder, click Extract. The extraction process will extract the compressed files, install the application, and place a shortcut on your desktop.

    NOTE: You may be prompted with Windows User Account Control, asking if you want to make changes to your device from an unknown publisher. It's safe to click yes during this prompt.
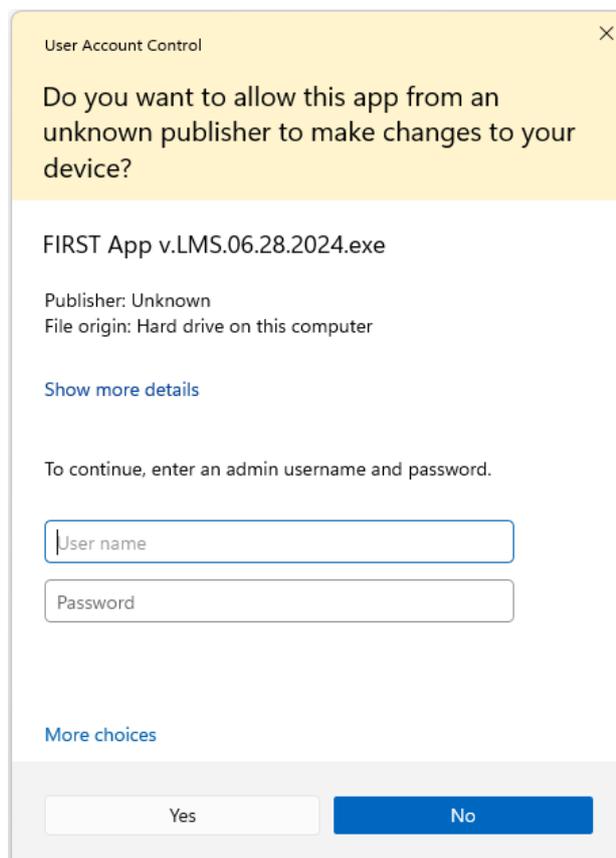
NOTE: This process typically completes within 5 minutes but may take longer depending on your computer specifications. Wait until the progress bar as finished before moving to the next step.
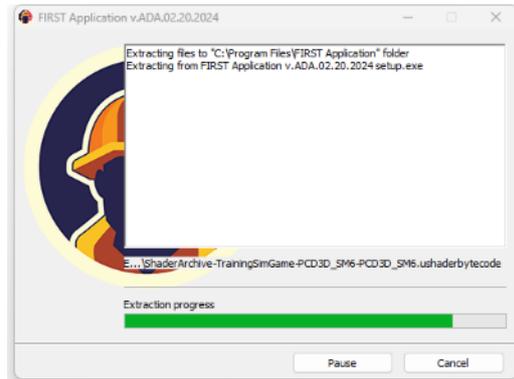

15. Locate the FIRST application on your computer and double click it to launch the training application.

    TIP: The installation process should have placed a shortcut to the FIRST Application on your desktop, which you can double click to launch the simulation.

    TIP: Or click the Windows key on your keyboard to engage your start menu and type "First Application" to find and open it.

16. If this is your first time launching the FIRST Application, you may receive the error message displayed below. These components are required to run the training application; click "Yes" to install the additional components.
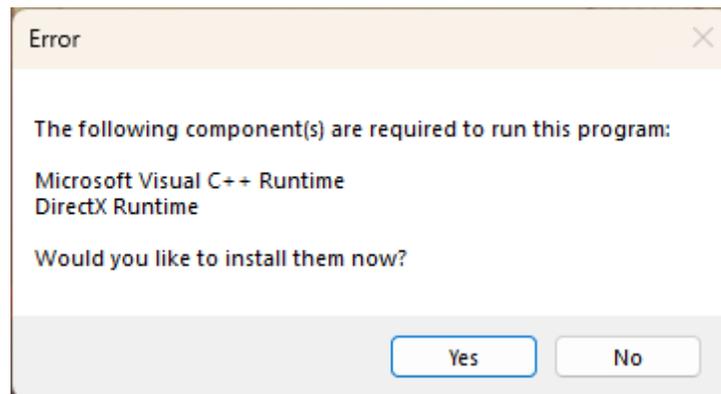

17. Once the supporting technology is installed, you will be prompted to install DirectX. Thoroughly read the agreement, check the agree checkbox (if you are legally able), and then click the Install button to complete the DirectX installation.
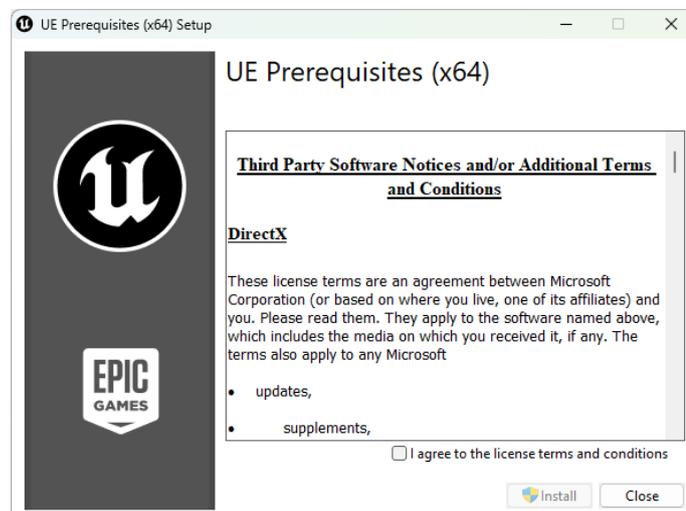
NOTE: This step can take more than several minutes to complete. Additional installation prompts may occur during this step, each of which will require additional time, depending on what must be updated or installed. Below are example screens that you may see during this step. None are unusual, but please be aware that your organization may require authorization from your IT department to successfully download and install.

To enable all features of the application, including Multi-user, you will need to install both the DirectX and the .NET Framework. Example of component installation are below.
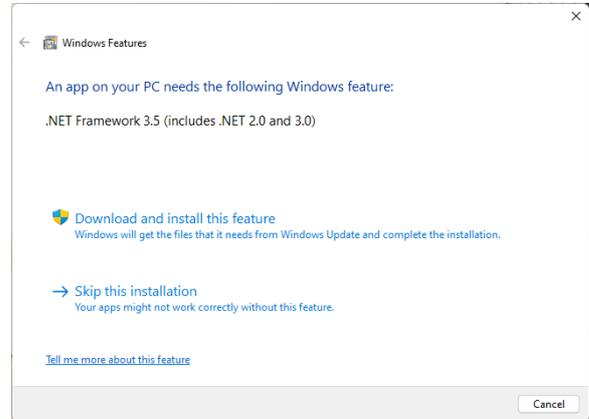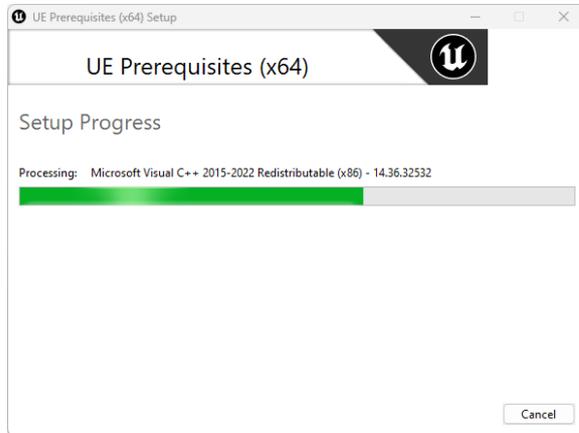
18. Once all components are installed, click Close to finalize installation and launch the application.
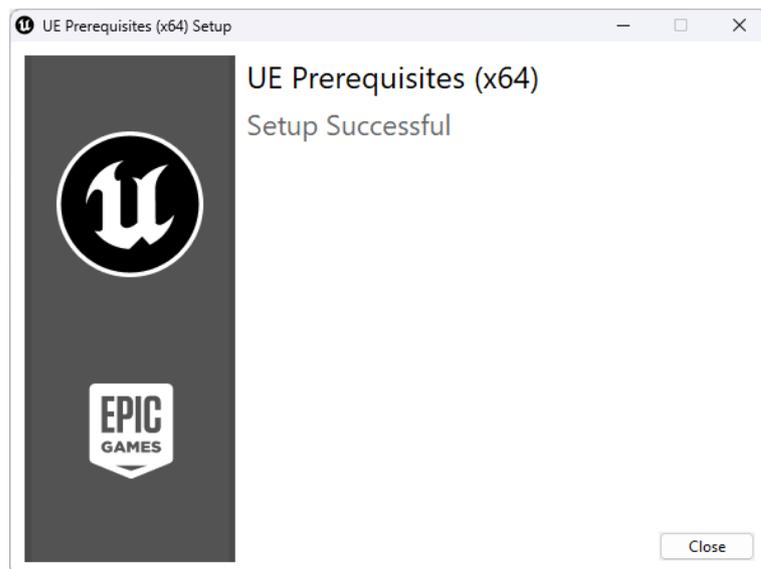
3.   Launching the Simulation

To launch the simulation, locate the FIRST application on your computer and double click it to launch the training application.

TIP: The installation process should have placed a shortcut to the FIRST Application on your desktop, which you can double click to launch the simulation.

TIP: Or click the Windows key on your keyboard to engage your start menu and type "First Application" to find and open it.

4.   Main Menu

The main menu of the application, seen below, allows you to adjust options, view the current top times, see the web-based resources associated with FIRST, get understanding of how to complete the simulation, and attempt the scenario in either single or multiuser formats.
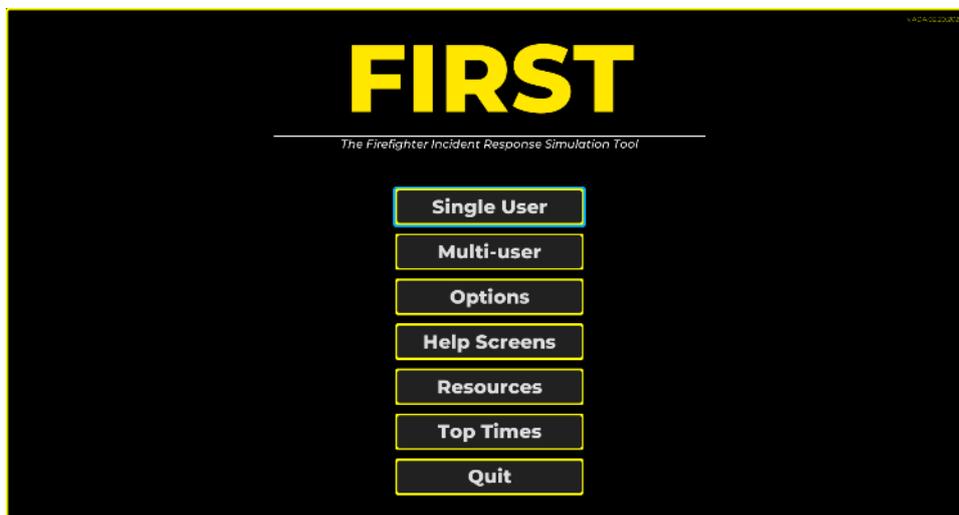
4.1   Single User

To complete the simulation alone, click the Single User button. You will then be presented with a scenario selection screen.
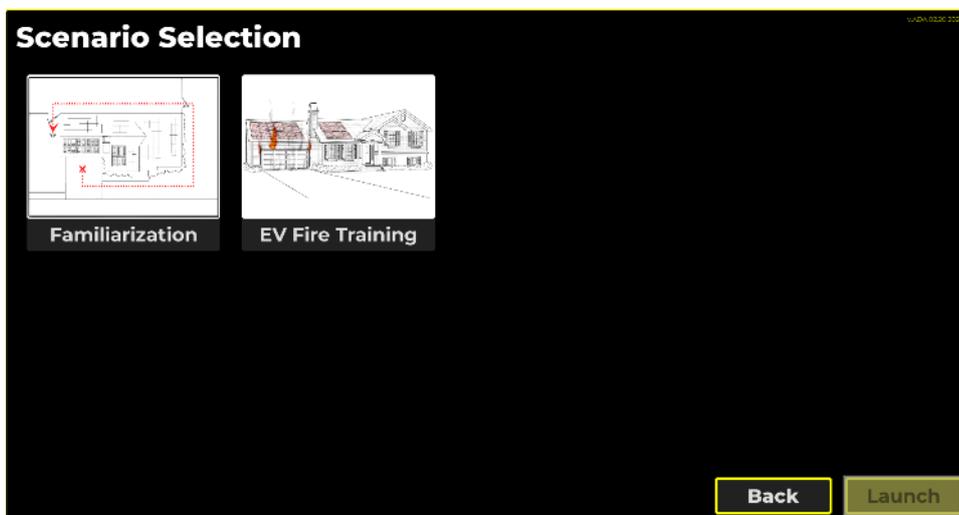
You can choose between the Familiarization scenario and the EV Fire Training Scenario. It is recommended that every user complete the familiarization level first before attempting the EV Fire Training scenario.
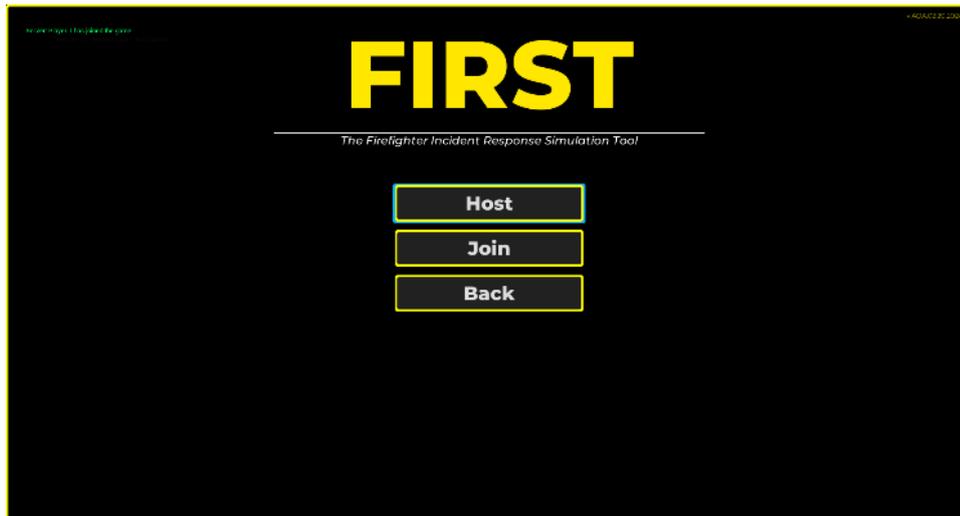
4.2   Multi-User

Multi-User allows you and your peers to attempt a scenario together. To participate in Multi-User, each trainee must have their own computer and all computers must be connected to the same local area network. One user's computer acts as the host machine and all other users' computers connect via the network to that host machine as clients.

NOTE: There could be security protocols in place blocking the ability to connect together. Speak to your organization's IT department to determine whether Multi-User mode will work for your group.

Multi-User Sessions

To start a multi-user session, every user must click the Multi-User button in the main menu. They will then be brought to the multi-user session screen seen below.

Starting a Multi-User Session as a Host

Only one user can host the session. That user will click the Host button, choose the scenario, set the session name, password (if desired), their player's name, and whether there is AI in the session or not.


Once the host has completed setting up the multi-user session, they should click the Ready button. This will propagate the session for everyone else to find on the network.

The back button will take you back to the multi-user selection screen.

NOTE: The other users will not see a session unless the host clicks ready.

At the ready screen, the host must wait until the other users join the session before clicking launch. As users join the session, the host will see their player's name appear in the list on the ready screen. Once all users have successfully joined the session, the host can click launch to start the multi-user session.
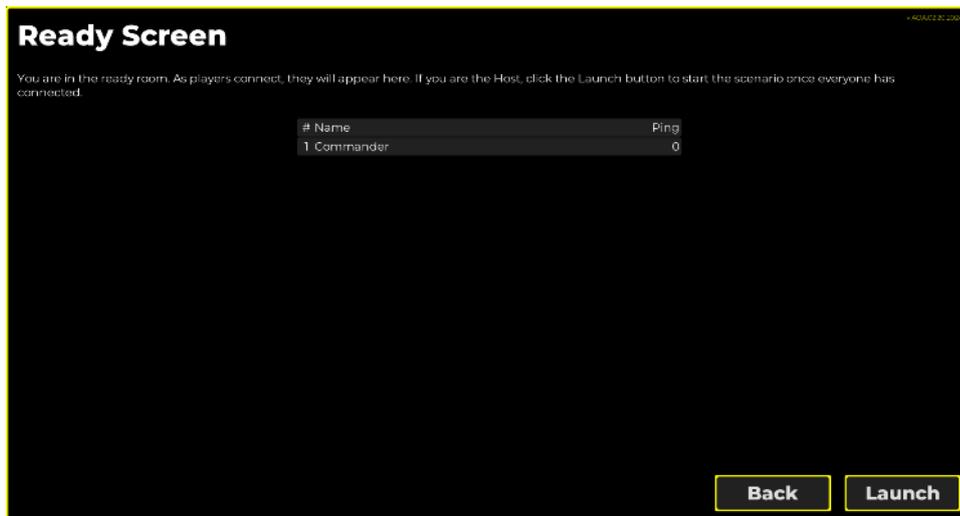

Joining a Multi-User Session as a Client

To join a multi-user session that is hosted by another user, click the Join button in the multi-user selection screen. Once you click join, a search for hosted sessions will automatically begin.

From the join screen, you can set your player name and enter a server password (set by the host, if there is one). Click the Search button to search for sessions again, if one is not found initially. Once a session is found, double click the session in the list or click the join button to enter the ready screen of that session; see below.
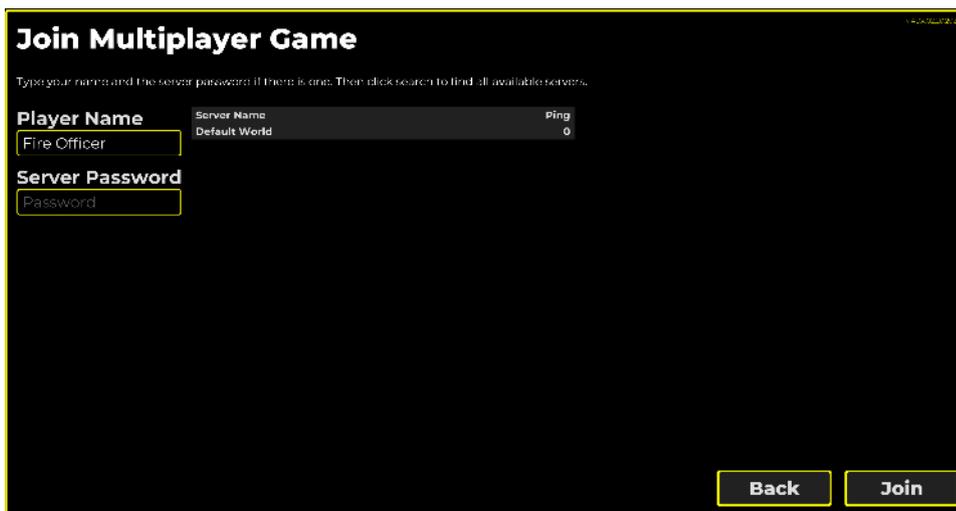

Like the host, you will be presented with a ready screen once you've connected to a session successfully. You will be able to see all the users that have joined the session.

NOTE: The host is the only person that can launch the session.
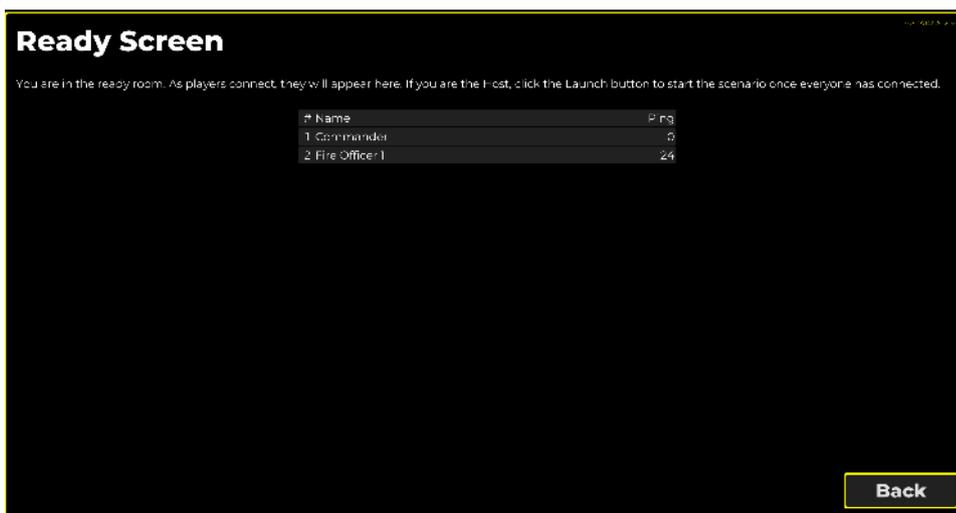
4.3   Options

Clicking the Options button from the main menu allows you to adjust the look sensitivity, whether the look control (Invert Y-Axis) is inverted, and the graphic settings. Once you have made your changes, press the save button to save the changes and you will be returned to the main menu automatically. If you do not wish to make any changes, press the back button to return to the main menu without saving changes.
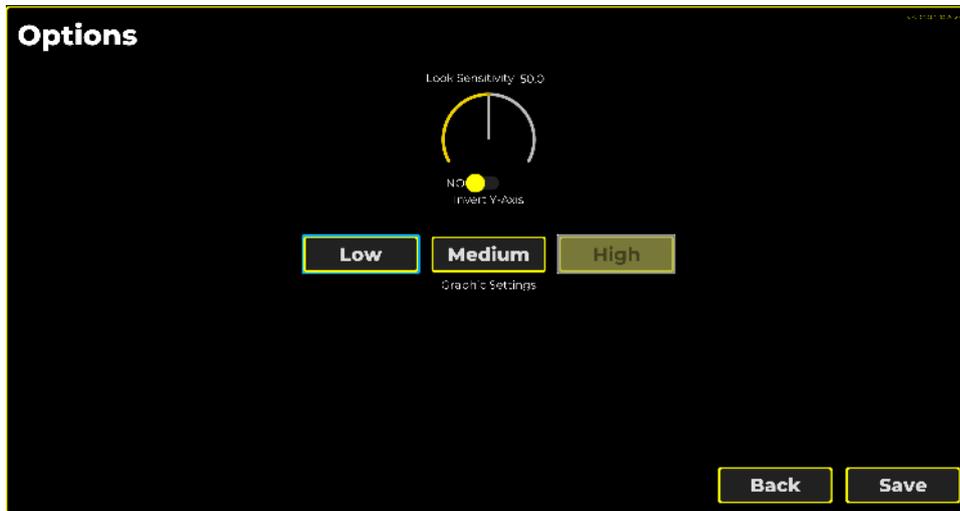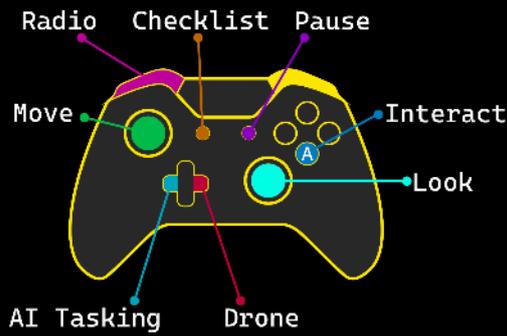

4.4   Help Screens

Click the Help Screens button from the main menu to learn how to move and interact with the world. To navigate through the help screens, press next or back. To return to the main menu, press the exit button. Examples of the help screens are below.
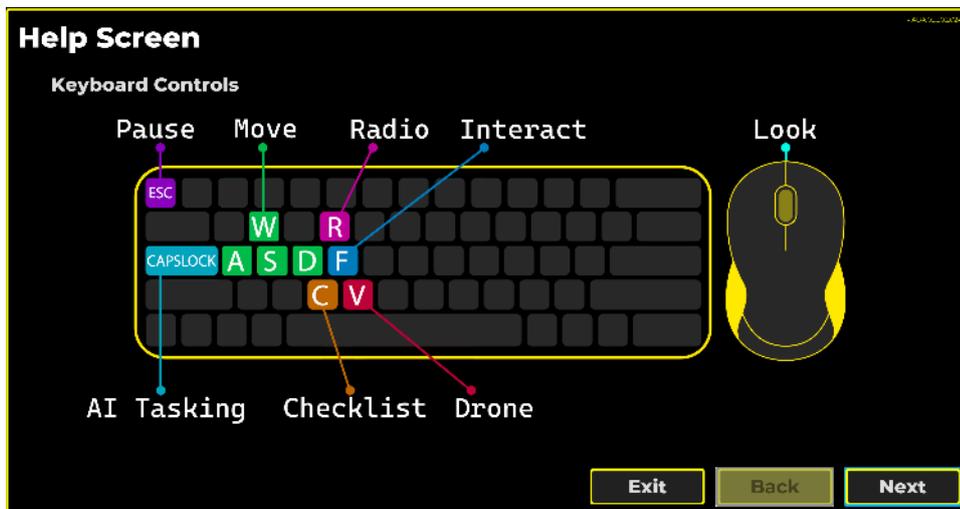
Help Screen

Gamepad Controls

- Radio
- Checklist
- Pause
- Move
- Interact
- Look
- AI Tasking
- Drone

Exit | Back | Next

Help Screen

Interact

To engage with the game environment, approach interactive objects and initiate interactions by pressing the F key on your keyboard or the A button on your gamepad.

Exit | Back | Next

Help Screen

AI Tasking

Assign tasks to your AI officers by activating the context-sensitive menu with the Caps Lock key on the keyboard or the left D-Pad button on the gamepad.

Choose the specific officer you want to assign a task to, and then select the desired action from the menu. Your AI officer will promptly carry out the task if available.

Exit | Back | Next

Help Screen

Checklist

Access your checklist by pressing the C key on your keyboard or the select button on your gamepad. This feature allows you to view all the tasks essential for successfully completing the scenario.

Dive into the checklist by selecting a specific checklist row to gain detailed insights into that task, ensuring a comprehensive understanding of your objectives.

Exit   Back   Next

Help Screen

Drone Mode

Experience a new perspective by transitioning in and out of your drone. Press V on your keyboard or the right D-Pad on your gamepad to access your drone.

Navigate the drone using WASD or the left thumbstick on your gamepad. Leverage the drone's capabilities to gain a comprehensive overview of the virtual world and pinpoint nearby tasks.

Exit   Back   Next

Help Screen

End Scenario

Conclude the scenario at your convenience by approaching the Commander's vehicle and initiating the End Scenario interaction.

Upon ending the scenario, your performance will be scored, reflecting your accomplishments and decisions throughout the virtual experience.
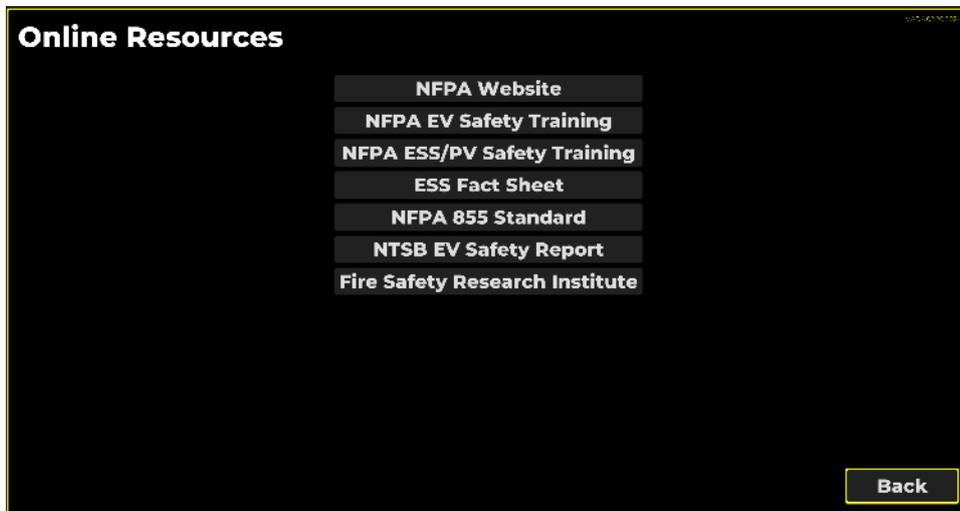
Exit   Back   Next

4.5   Resources

Click the Resources button from the main menu to see a list of available resources based on the scenario within the FIRST application. Clicking on any resource will take you out of the application and directly to that resource's web page. You can click the back button to return to the main menu.

4.6   Top Times

Click the Top Times button from the main menu to see the best times that users have made via successful completion of the application. The top times will only include successful completions of the simulation that were accomplished on the local computer where the application is installed. Click the back button to return to the main menu.

4.7   Quit

Click the Quit button from the main meu to exit the application and return you to the desktop.

5.   Scenarios

Each scenario offers a different list of training objectives to complete. The first training scenario to attempt is always the Familiarization, which is designed to walk you through the world and show you how to interact with objects in the world.

The other scenario, EV Fire Training, includes an electrical vehicle fire within a single-family residence's garage. You can either work with the AI (Single User) or with your peers (Multi-User) to successfully extinguish the fire.

Choose the scenario you wish to attempt in the scenario selection screen after choosing Single User or Multi-User from the main menu.

5.1   Scenario Launch Help Screens

As a scenario begins, you will be presented with the same help screens that are accessed through the main menu. These screens are made available as a reminder to the controls and how to interact with the world before you launch the session. Pressing back or next will allow you to navigate through the screens. Once you click the launch button, you will enter the scenario.

5.2   Scenario Objectives

Once in the scenario, you will need to successfully complete a list of objectives. Once all objectives have been completed, return to the commander's vehicle to see how well you've completed the scenario.

On-Screen Indicators

Each objective will have an on-screen icon that appears once you're close enough to indicate where to go to complete that objective. See the yellow on-screen icons near the fire officer and garage door in the image below.

Checklist

To see the objectives of each scenario and to see which objectives you have completed, open the checklist by pressing C on the keyboard or SELECT on the gamepad. If you are in a multi-user session, only the commander can open the checklist. The commander should report the objectives to their officers so that everyone can work together in completing them.

You can click on an objective in the checklist to get more information about that objective. See below.

Press C on the keyboard or SELECT on the gamepad again to return to the game.

5.3   Interact with Objectives

To interact with an objective, you must be close enough and your view center target, indicated by a small, white circle, must be over the on-screen objective icon. In the screen below, we are close enough, but the view center target is NOT on the objective icon; therefore, the user cannot interact with the garage door.


Adjusting your view so that the view center target is over the objective icon will result in a prompt letting you know you can interact with that objective. See the image below: the user is close enough and they have moved the view center target over the objective indicator. A prompt is presented to the user and they can interact with that objective by pressing F on the keyboard or the A button on the gamepad.

5.4   Drone Mode

The commander in multi-user sessions, and the user in a single user session can operate the included drone. The drone will allow you to fly around the area to observe the scenario and gain insight to the situation. It will also allow you to see all the current objective locations, regardless of user distance to that location. To enter and exit the drone mode, press V on the keyboard or right D-Pad on the gamepad. See the drone mode below.
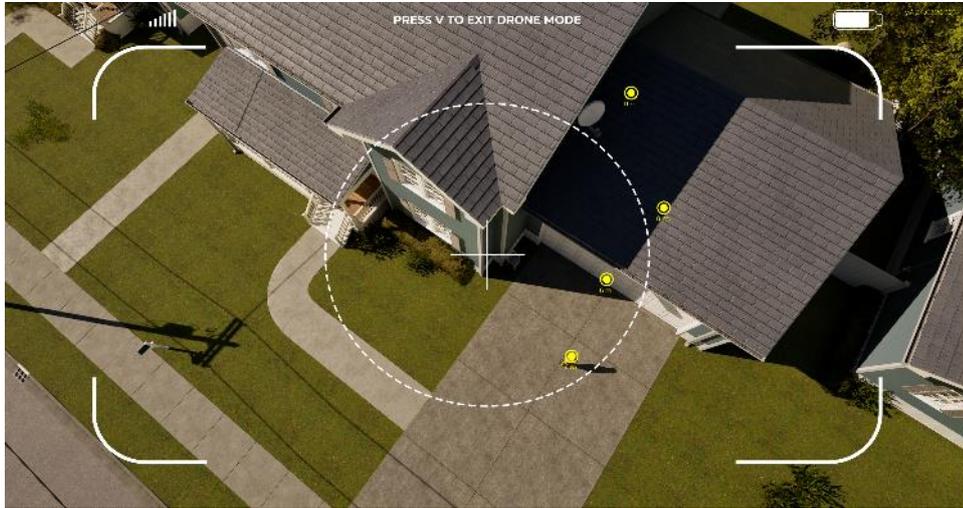

5.5   Familiarization Scenario Objectives

The Familiarization scenario objectives are designed to help the user learn about the EV Fire Training scenario. Each objective focuses on a relevant topic, allowing the user to read and watch videos on the subject. Within the Familiarization scenario, find and interact with all the objectives to access the learning materials.

Press the next and back button to navigate through each screen on the objective topic. Pressing the exit button will return you to the application.

You can use the multi-media buttons to play, stop, rewind, and fast-forward the video on the screen. Additionally, you can scrub through the video by dragging the yellow multi-media bar.
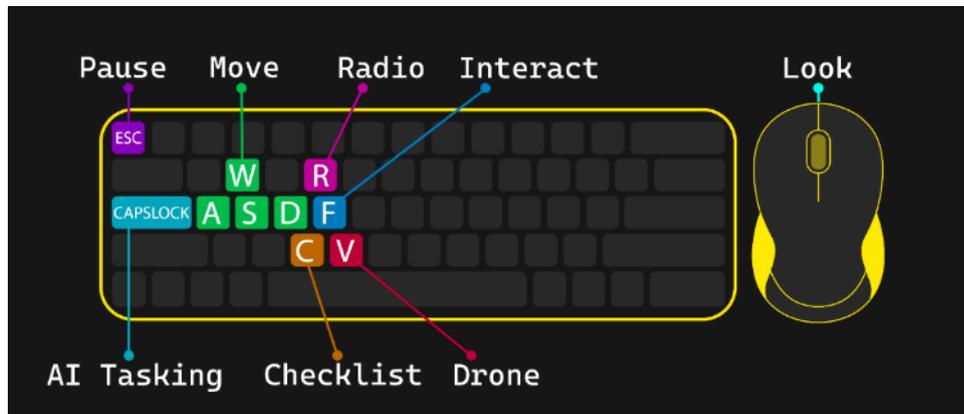
An example of a Familiarization objective topic is shown below.
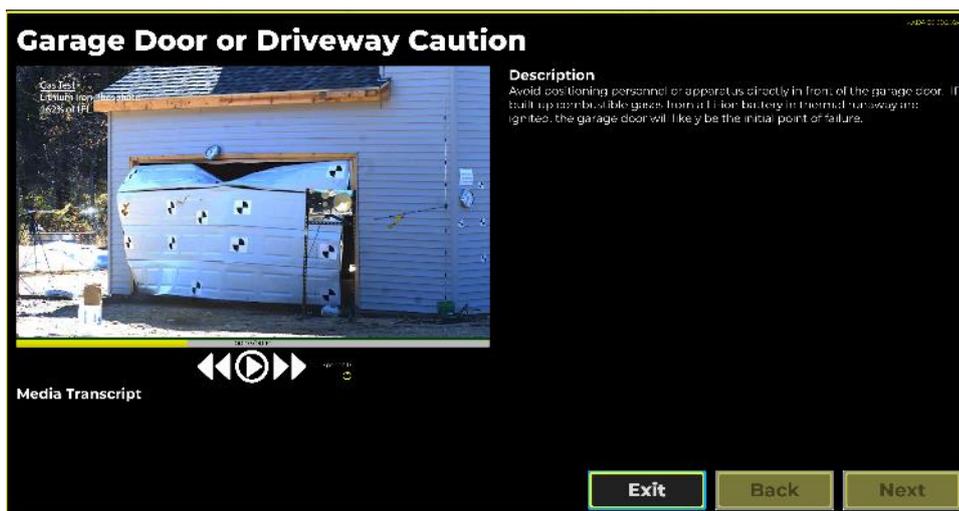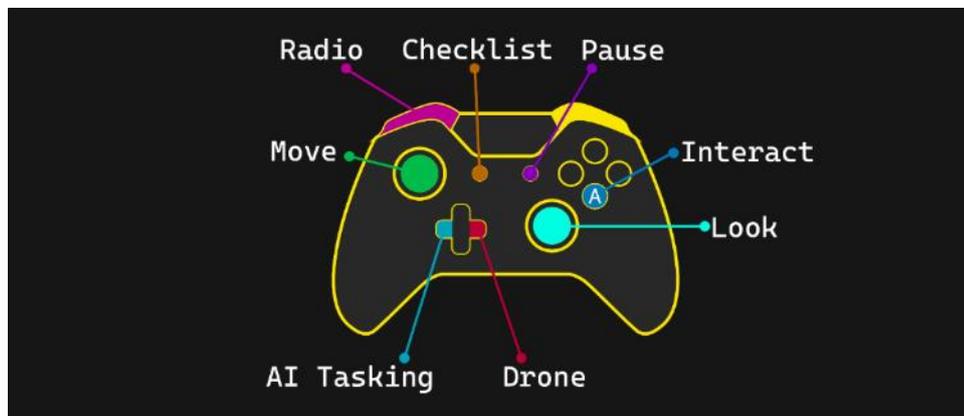
5.6   Controls

This section discusses the controls for the application. These controls are always available to view within the application by going to the Help Screens from the main menu.

The controls if you use a keyboard and mouse.

The controls if you use a gamepad.

Movement

Use either the WASD keys or arrow keys on the keyboard or use the gamepad's left thumbstick for moving forward, backward, left, or right.

Look

Use the mouse or the gamepad's right thumbstick to look around and control the direction you move.

Controlling AI Officers

You must be the commander in multi-user sessions or use single user to command the AI officers. You assign tasks to your AI officers by activating the context-sensitive menu with the Caps Lock key on the keyboard or the left D-Pad button on the gamepad. Choose the specific officers you want to assign a task to, and then select the desired action from the menu. Your AI officer will carry out the task, if available.

Interacting with the World

Press F on the keyboard or the A button on the gamepad to interact with objectives within the simulation. You must be close enough to the on-screen objective icon and your view center target must be over the icon to interact with the objective.

In-Game Radio

In multi-user sessions, you can communicate with your peers via the in-game radio. Press and hold R on the keyboard or left shoulder button on the gamepad to use the radio. Just like a real radio, you will hear a beep. After the beep, speak into your microphone and other players will hear you. Release R on the keyboard or left shoulder button on the gamepad to end talking on the radio. You will hear another beep confirming your radio is off.

End a Scenario

To end a scenario after completing the objectives, return to the back of the commander's vehicle in front of the house and interact with the objective.

After you interact with the commander's vehicle, you will be presented with an ending screen tallying your score, showing you what objectives you missed, and allowing you to go to the main menu or quit the game.

6. Troubleshooting

6.1 FAQ

Please look over the included FAQ if you cannot find a troubleshooting solution here.

6.2 Performance Issues

Ensure your system meets minimum requirements. Adjust graphics settings in the main menu's option screen for optimal performance.

Minimum Requirements

- Processor (CPU):
  – AMD Ryzen 5 2600 or
  – Intel Core i5-7400 (or equivalent)
- Graphics Card (GPU):
  – NVIDIA GTX 1050 Ti 4GB or
  – AMD Radeon RX 560 (or equivalent)
- RAM:
  – 8GB DDR4
- Storage:
  – 6 GB SSD (Solid State Drive for faster loading times)
- Operating System:
  – Microsoft Windows 10 64-bit

Unresponsive Controls

Verify that input devices are connected. Use a mouse for optimal control.

Being Stuck in the Simulation

Review training materials and restart the simulation if necessary. You can always exit any session by pressing and holding alt and then pressing f4.

Ending the Simulation

Press and hold "ALT+F4" to end the simulation if needed. Or press Escape to bring up the pause menu, allowing you to quit the game at any time.

7. Technical Support

For technical support, contact our support team at MRDENorthAmericaTeam@GHD.com