VerbaConstruct

Quick Start Guide

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About VerbaConstruct

VerbaConstruct is a **3D virtual reality (VR) construction simulation** system developed using the Unity game engine. The primary objective of this system is to **streamline** the creation of **VR scenes for construction simulations**, enabling easier utilization of VR technology for training and modeling purposes in the construction industry.

More information can be found:
https://events.engineering.oregonstate.edu/expo2023/project/verbaconstruct

How To Download and Install VerbaContruct

VerbaConstruct can be downloaded from this link:
https://oregonstateuniversity-my.sharepoint.com/:f:/g/personal/karambud_oregonstate_edu/EsXSG3DKB95Cu_4uFO0_sCEBSLuXtiT8lRQZnp6lWyHu0A?e=SYbeyd

Alternatively, the download link can be found at:
https://github.com/shrmanator/VRSBUTBI/releases/tag/Production
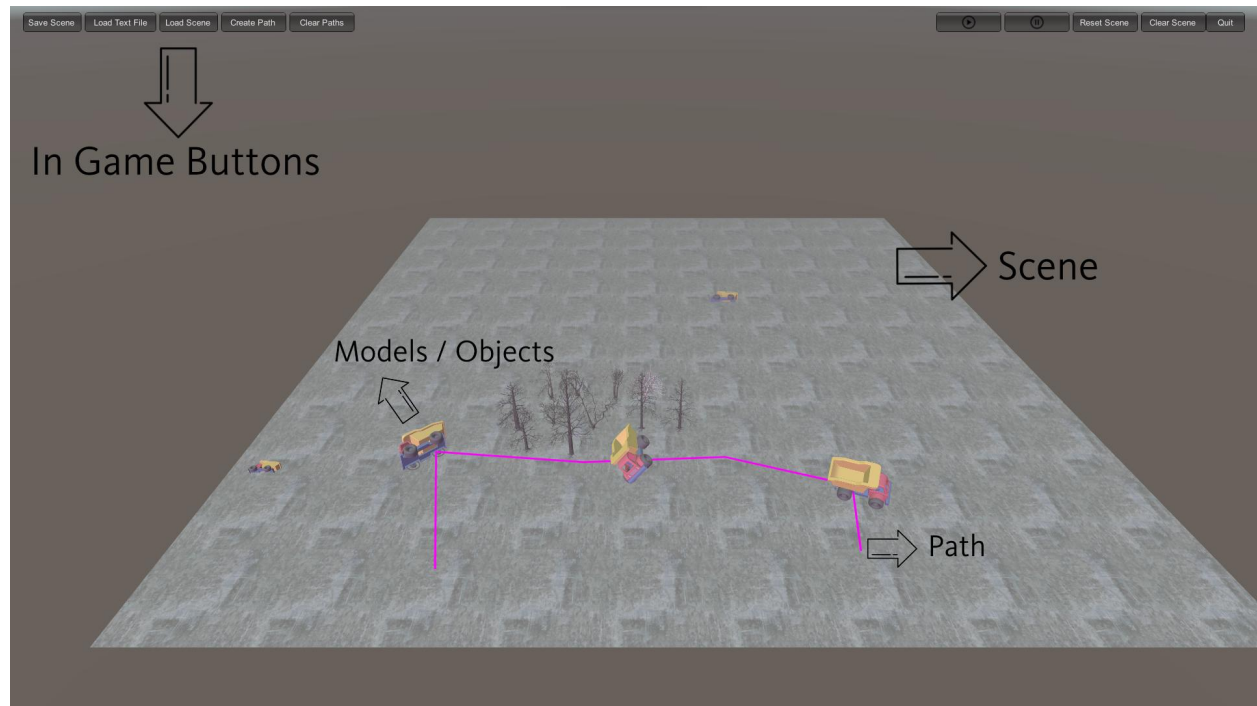
Press the download button at the top left corner. This will download the VerbaConstruct.zip file.

To run this application:
1. Unzip VerbaConstruct.zip
2. Open the VerbaConstruct folder
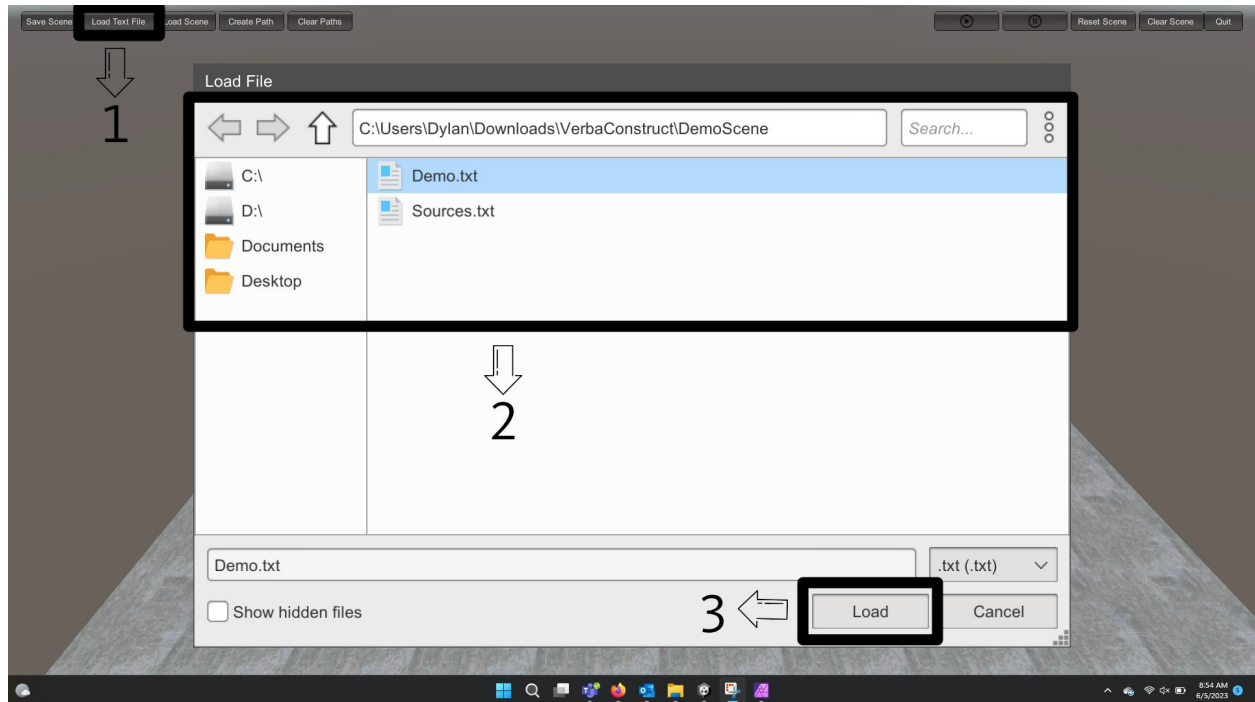3. Run the VerbaConstruct.exe file

Note: you must run VerbaConstruct.exe at least once before you can import your own objects to the program.

An overview of the User Interface

How To Import STROBOSCOPE Commands

Please Refer to the document "VerbaConstruct - Commands" for a detailed list of supported STROBOSCOPE commands.

1. Click on Load Text File
2. Find the text file that contains STROBOSCOPE Commands
3. Click on Load

How to Import Object Files (.obj) Into a Scene

Note: VerbaConstruct.exe must be run at least once *prior* to importing an .obj file into a simulation scene.
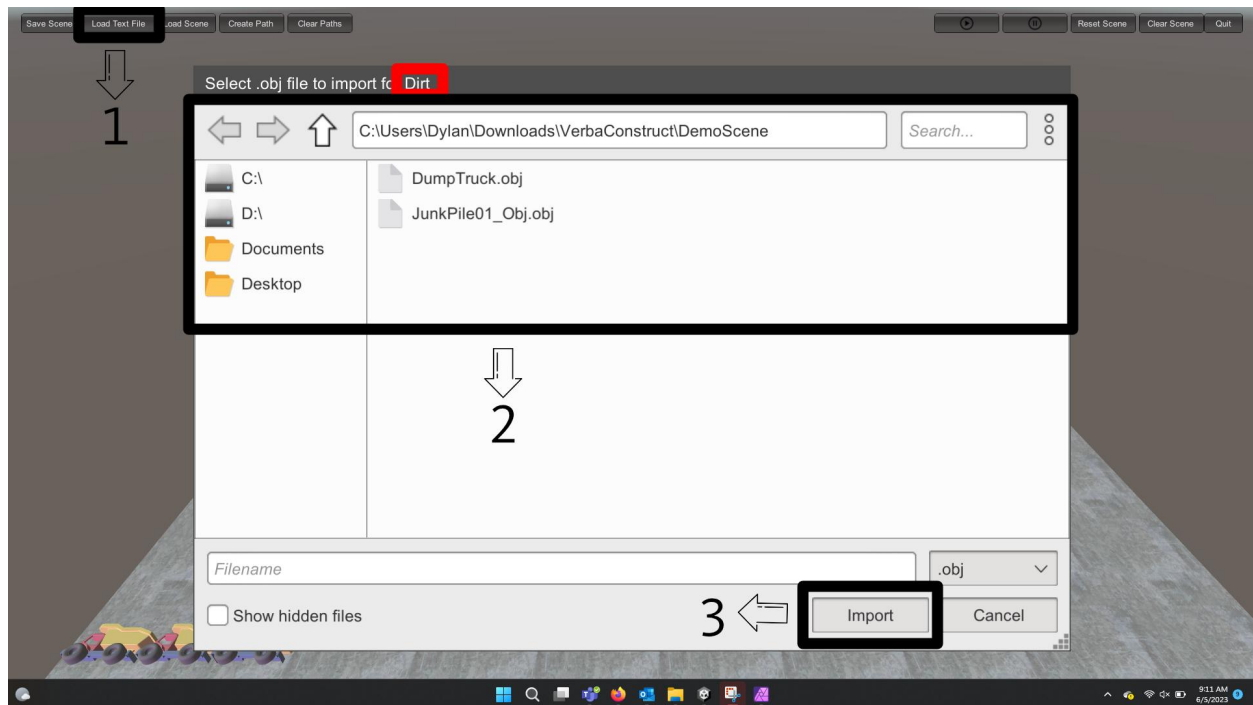
1. Place your desired .obj and any associated files in VerbaConstruct/VerbaConstruct_Data/Imported_Models
2. When writing a text file, use the file name (minus the .obj file extension) as the object type in the CREATE commands (see "VerbaConstruct - Commands" for CREATE command details)
3. VerbaConstruct will automatically import that model for the matching object type.
4. If no .obj file with a file name matching the object type is found in Imported_Models, then a file select prompt will appear. Select the desired .obj file for that object type.

How To Create A Path For An Object To Follow

1. Click on Create Path
2. Left click to place waypoints for the path
3. Click on Save Path
4. The path connecting the waypoints will be generated and shown with a purple line

How To Run and Pause The Simulation

1. Click on play button to run the simulation
2. Click on the pause button to pause the simulation
3. Click Reset Scene to restart the current scene
4. Click Clear Scene to remove the current scene and all objects

How To Save and Load The Simulation
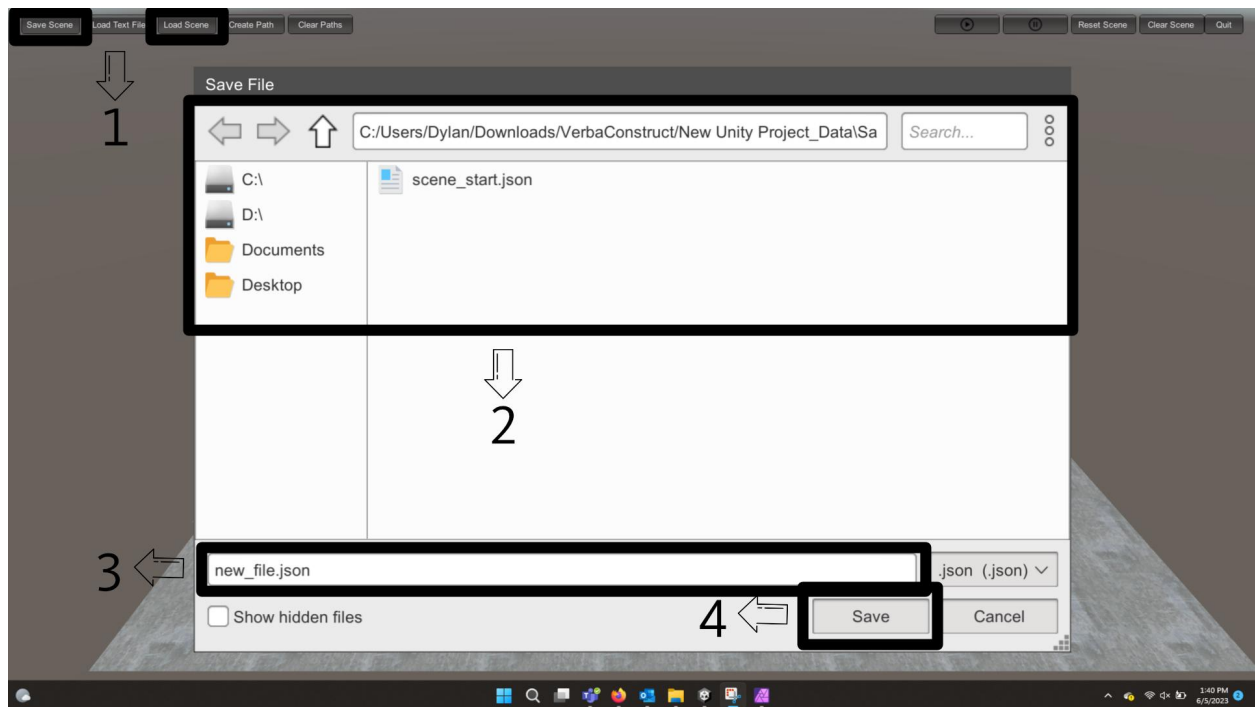
1. To save your current progress, click on "Save Scene" (top left of diagram)
   a. Choose where you want to save the current scene (see number 2 in diagram)
   b. Name your saved file (see number 3 in diagram)
   c. Click "Save" (see number 4 in diagram) to save it to your chosen destination.

2. To load a previously saved scene
   a. Click "Load Scene" (top left of diagram, next to Load Text File)
   b. Locate your previously saved scene
   c. click on "Load"