

VISION

User Guide

Team Atlantis

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User Guide

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1.0 General Information

1.1 System Overview

The VISION system is designed to allow a user to display a message or image on a 16 x 96 dot matrix marquee to a large group of viewers. The VISION system has an easy-to-use interface and pre-programmed special effects that the user will pick from to display their message or image to their viewers. Users will be able to store and retrieve previous messages and images with the account they will make when they open the VISION system.

1.2 Points of Contact

The following table is a list of contact information that users should reference in case of questions pertaining to the VISION program.

Name	Role	Phone	Email
A. Lloyd Walters	Project Manager	(919) 614-8739	lewalters@my.waketech.edu
B. Augustine Abban	Assistant Project Manager	(334) 492-1644	aabban@my.waketech.edu
C. Hector Gonzalez	Design Engineer	(919) 720-5607	hmgonzalez1@my.waketech.edu
D. Tayyab Razzaq	Test Engineer	(919) 961-7349	trazzag@my.waketech.edu
E. Carter Oakes	Documentation Lead	(919) 600-4949	cloakes@my.waketech.edu

1.3 Organization of the User Guide

This User Guide is divided into 3 major sections:

- 1.0 — General Information: Contains the basic information of the VISION system, including the functions, references, and points of contact.
- 2.0 — System Summary: Contains the general overview of the system.
- 3.0 — Getting Started: Contains a walk-through guide of the VISION system, from beginning to end.

2.0 System Summary

2.1 System Configuration

Users will be provided with a GUI to interact with the matrix marquee to help them decide what kind of message or image they would like their customers to view, decide special effects, message/image run time, and storing and retrieving previous messages/images.

3.0 Getting Started

The figures below will show a walkthrough of the VISION program. The user will be welcomed to the VISION program and be prompted to click anywhere on the screen to continue.

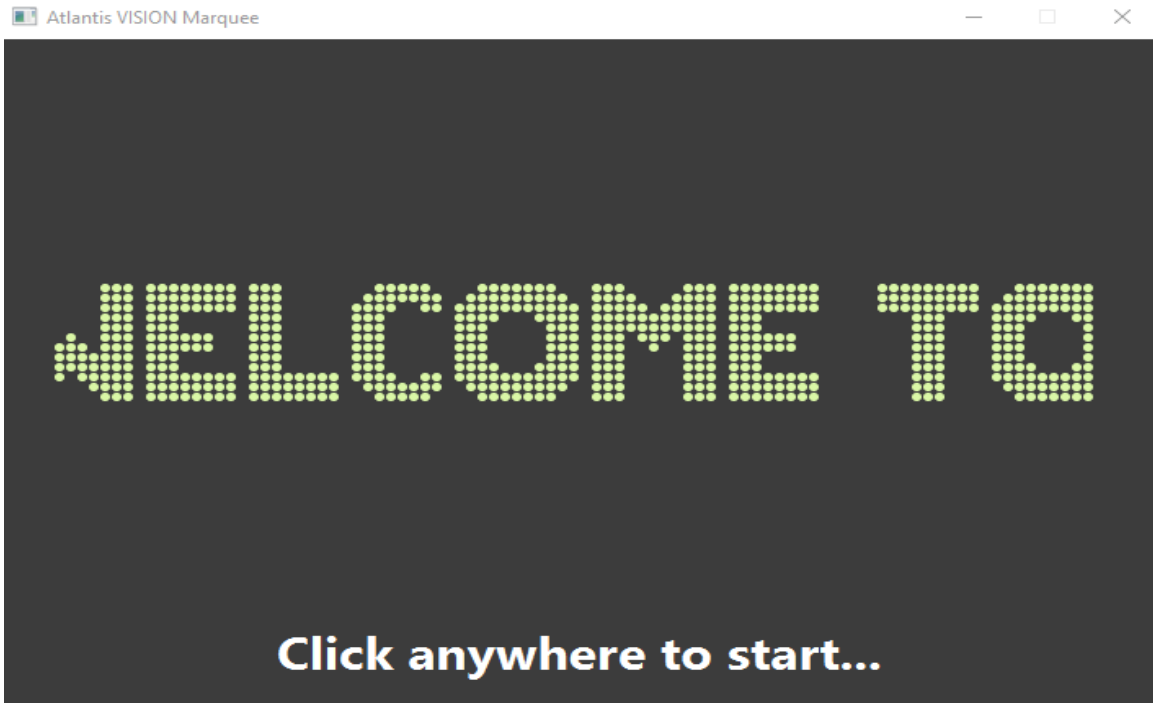


Figure 1 Welcome Screen

Once the user clicks on the screen they will be sent to the VISION GUI which will be the main screen for the VISION program where users will be able to set up their marquee to their preferences.

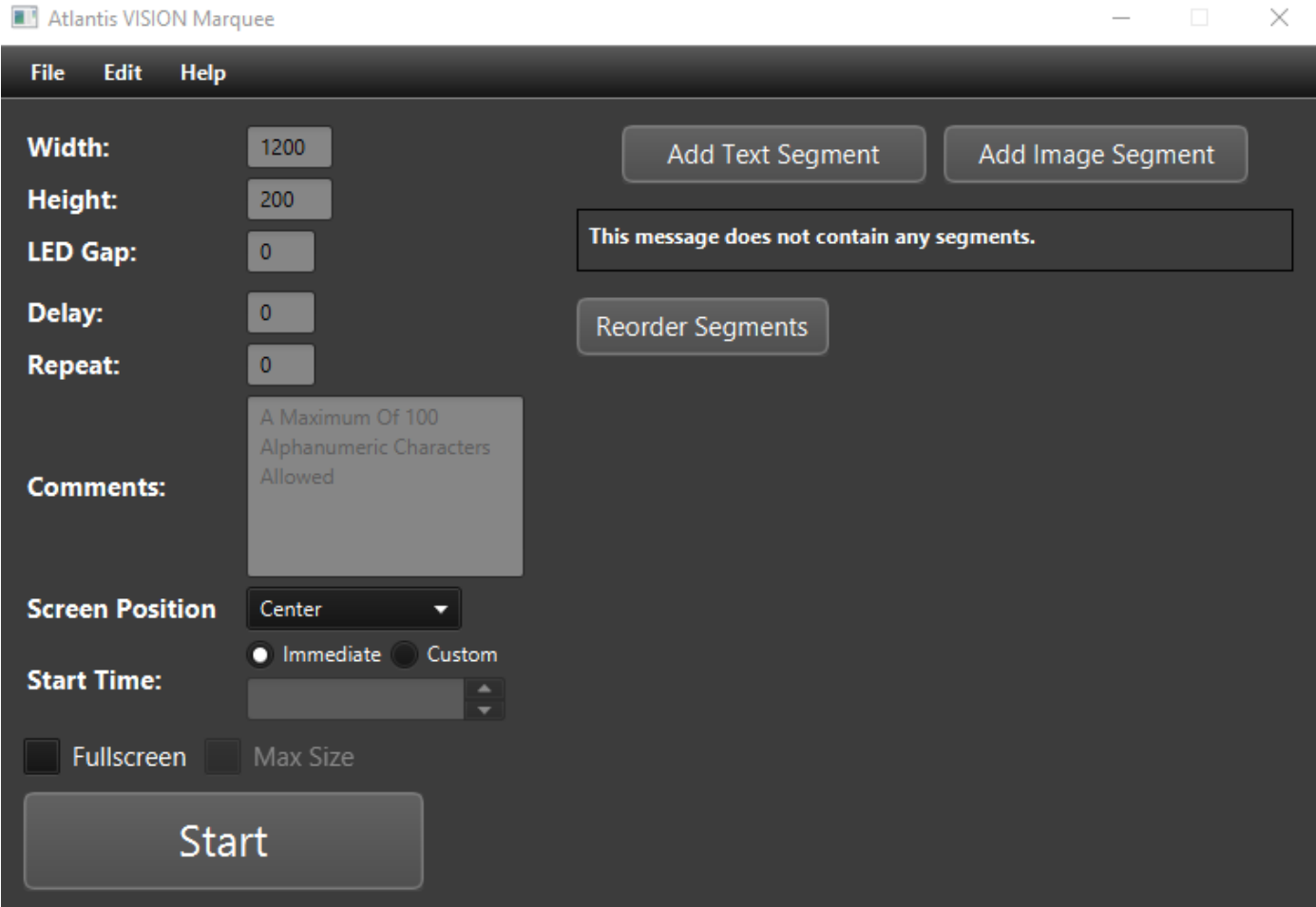


Figure 2 Settings Pane

The Toolbar Menu include the File, Edit, and Help buttons. The File button will be covered in a later section. The Edit button includes the Undo and Redo feature of the VISION program. The Help button includes the How to Use Vision Button which got you here to this tutorial and the About button which tells you about the VISION program itself.

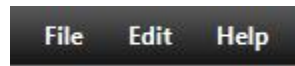


Figure 3 Toolbar Menu

The user will be prompted to enter the settings for the message and how the marquee will display the message.

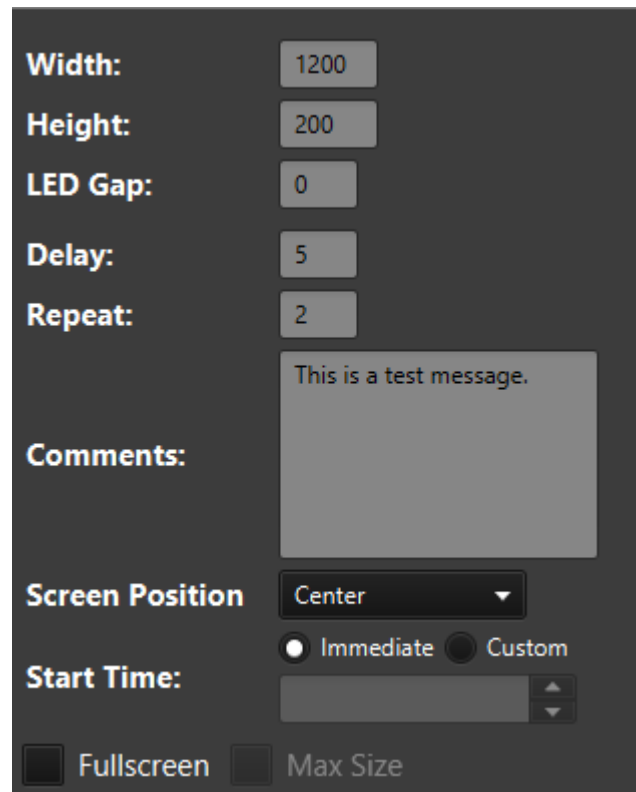
The image shows a 'Message Settings' dialog box with a dark gray background. It contains several input fields and controls: 'Width:' with a text box containing '1200'; 'Height:' with a text box containing '200'; 'LED Gap:' with a text box containing '0'; 'Delay:' with a text box containing '5'; 'Repeat:' with a text box containing '2'; a 'Comments:' label next to a large text area containing 'This is a test message.'; 'Screen Position' with a dropdown menu set to 'Center'; 'Start Time:' with a radio button selected for 'Immediate' and another for 'Custom'; and two checkboxes at the bottom, 'Fullscreen' and 'Max Size', both of which are currently unchecked.

Figure 4 Message Settings

Width will control how wide the Marquee will display after clicking start.

Height will control how tall the Marquee will display after clicking start.

LED Gap will control how the gap between dots that display on the Marquee.

Delay will control the timing of the message until it is repeated for a certain amount of times.

Repeat will control how many times the message is repeated.

Comments will explain what the message is doing and is for user input.

Screen Position will control where on the screen will the Marquee display.

Start Time will control the time when the message on the Marquee will display.

Full screen will control if the Marquee box will be full screen or not.

Max Size will display the Marquee at the max size of the screen the user is using.

If the user would like to create another text or image segment there are two buttons, if pressed the user will be sent to another location to enter data for another segment.

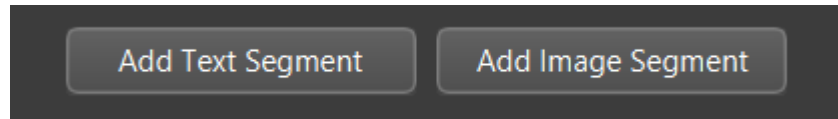
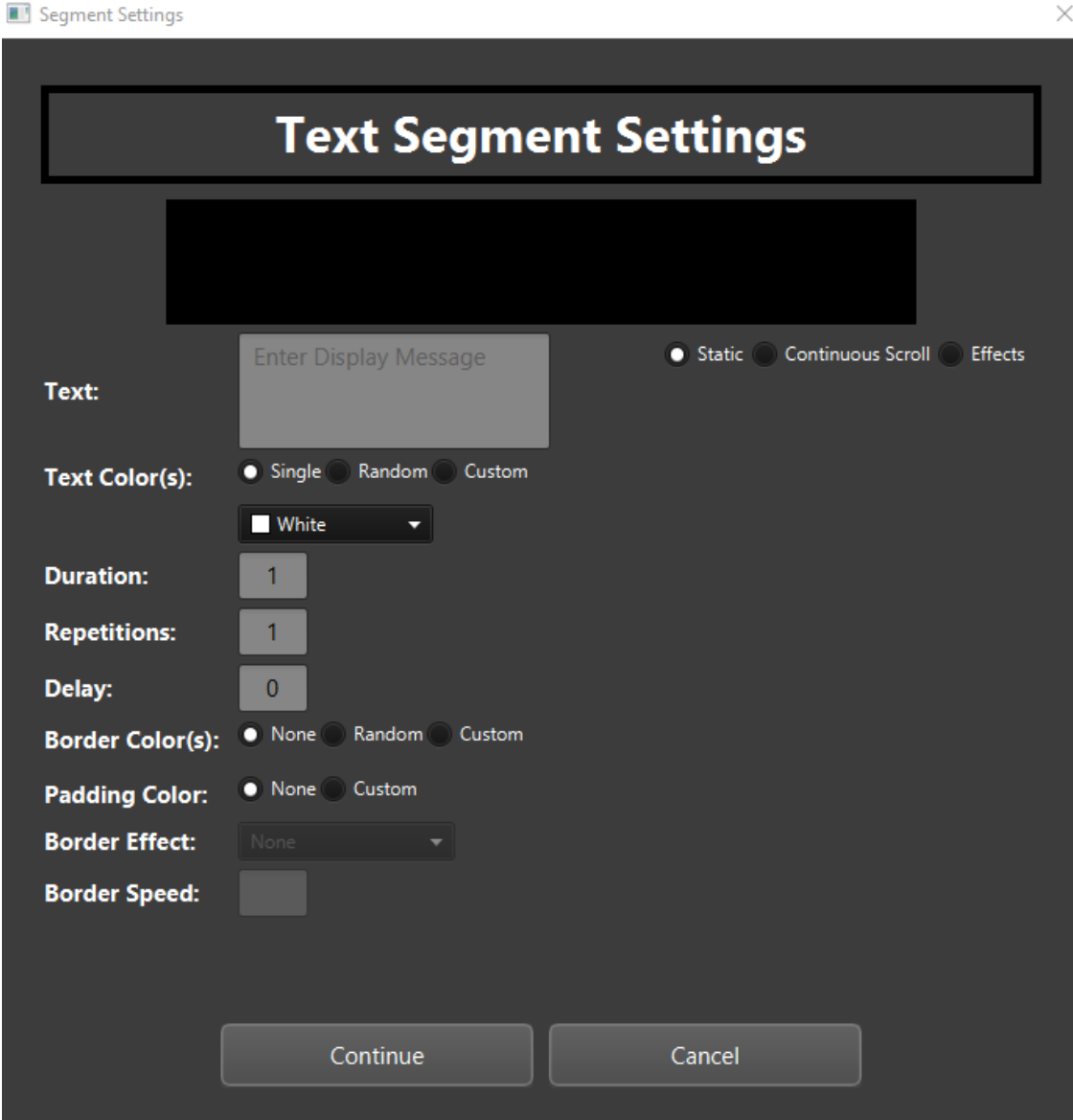


Figure 5 Segment Creation

If the user clicks the “Add Text Segment” button they will be brought to the Text Segment Settings screen where they can create and control how the text segment is displayed on the Marquee.



The image shows a 'Text Segment Settings' dialog box with a dark gray background. At the top, there is a title bar with a small icon and the text 'Segment Settings', and a close button (X) on the right. Below the title bar is a large black rectangular area for a preview. Underneath the preview is a text input field with the placeholder text 'Enter Display Message'. To the right of the input field are three radio buttons: 'Static' (selected), 'Continuous Scroll', and 'Effects'. Below the input field are several settings: 'Text Color(s)' with radio buttons for 'Single' (selected), 'Random', and 'Custom', and a color selection dropdown currently showing 'White'; 'Duration:' with a numeric input field containing '1'; 'Repetitions:' with a numeric input field containing '1'; 'Delay:' with a numeric input field containing '0'; 'Border Color(s):' with radio buttons for 'None' (selected), 'Random', and 'Custom'; 'Padding Color:' with radio buttons for 'None' (selected) and 'Custom'; 'Border Effect:' with a dropdown menu currently showing 'None'; and 'Border Speed:' with a slider control. At the bottom of the dialog are two buttons: 'Continue' and 'Cancel'.

Segment Settings

Text Segment Settings

Enter Display Message

☒ Static ☐ Continuous Scroll ☐ Effects

Text:

Text Color(s): ☒ Single ☐ Random ☐ Custom

White

Duration: 1

Repetitions: 1

Delay: 0

Border Color(s): ☒ None ☐ Random ☐ Custom

Padding Color: ☒ None ☐ Custom

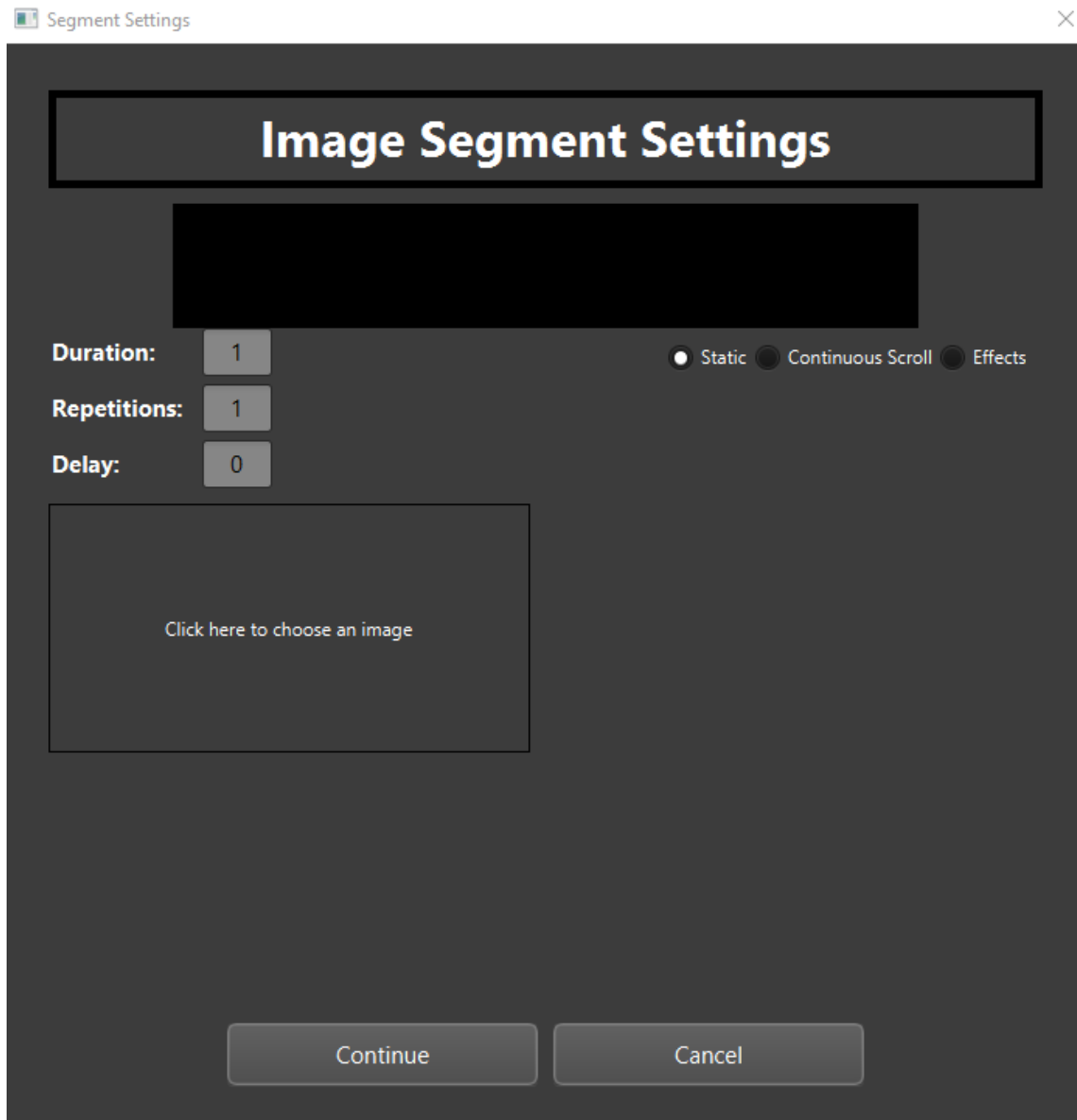
Border Effect: None

Border Speed:

Continue Cancel

Figure 6 Text Segment Settings

If the user clicks the “Add Image Segment” button they will be brought to the Image Segment Settings screen where they can create and control how the image segment is displayed on the Marquee.



The image shows a dark-themed dialog box titled "Image Segment Settings" with a close button (X) in the top right corner. The dialog contains a large black rectangular area at the top, likely for a preview. Below this, there are three settings: "Duration:" with a value of 1, "Repetitions:" with a value of 1, and "Delay:" with a value of 0. To the right of these settings are three radio buttons labeled "Static", "Continuous Scroll", and "Effects", with "Static" being the selected option. Below the settings is a large rectangular area with the text "Click here to choose an image". At the bottom of the dialog are two buttons: "Continue" and "Cancel".

Segment Settings

Image Segment Settings

Duration: 1

Repetitions: 1

Delay: 0

☒ Static ☐ Continuous Scroll ☐ Effects

Click here to choose an image

Continue Cancel

Figure 7 Image Segment Settings

If the user successfully creates a text/image segment it will be added to the Message information center where you can edit, delete, and reorder the segments in a message.

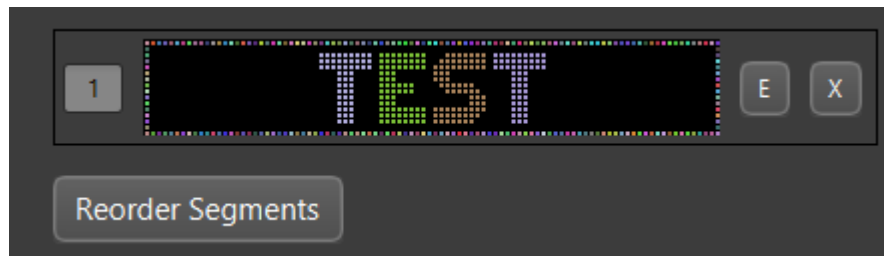


Figure 8 Message Information Center

When the user has successfully entered the correct data into the appropriate fields they will click the start button to display the marquee.

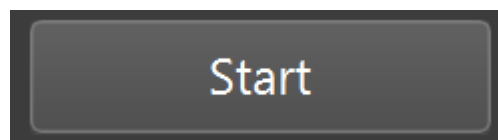


Figure 9 Start Marquee

When the user clicks the Start button the marquee will display the Message in order from the Message Information center.

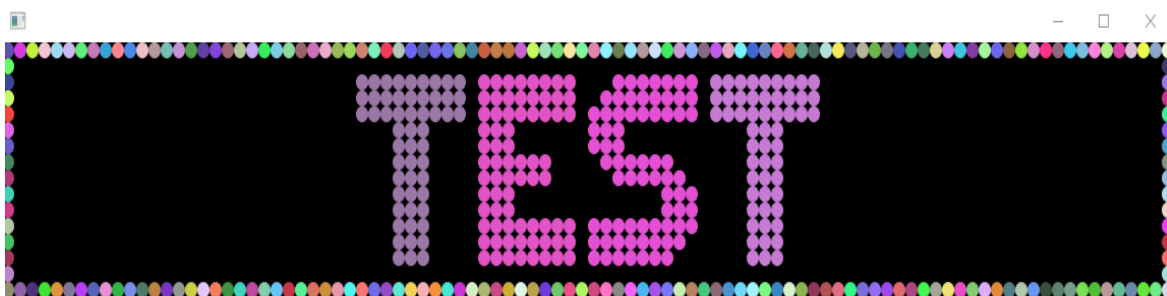


Figure 10 Text Segment Marquee

Here is an example of an Image Segment on the Marquee.

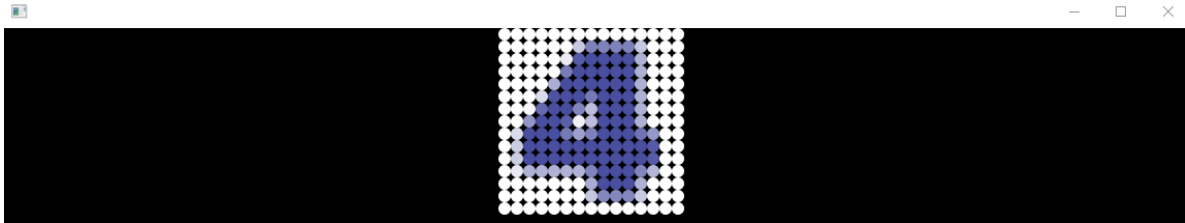


Figure 11 Image Segment Marquee

If the user would like to Save a Message they can click the 'File' button and save the message to an XML file for later use.

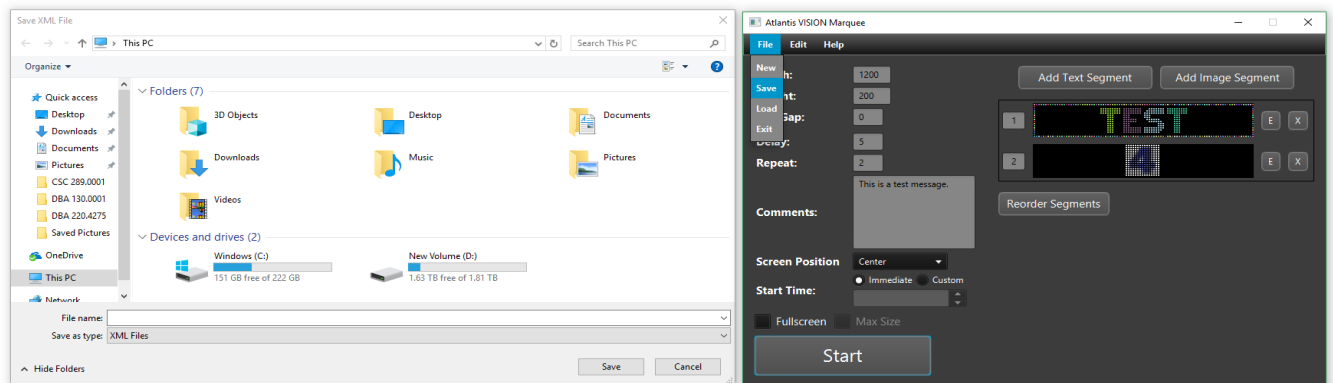


Figure 12 Save Screen

If the user would like to load an XML file into the program they click the 'Load' button and the file chooser will pop up and prompt the user to find their XML file that they would like to use. It will only load an XML file and no other types of files.

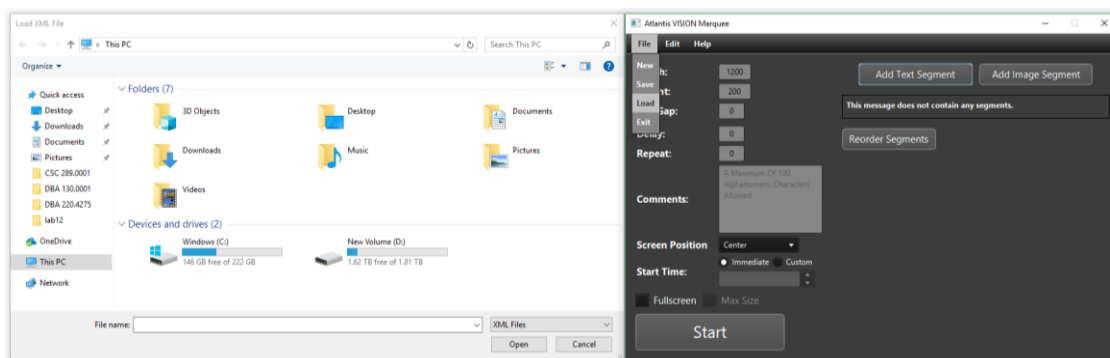


Figure 13 Load Screen