Trimble Site Viewer

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Bachelor of Information and Communication

Technologies Software Development Pathway

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Introduction

Trimble Site Viewer is a project for Trimble Inc. to investigate and deploy a democratised system to record and document worksites and conduct rapid assessments.

Aim

- Leverage images metadata (EXIF or XMP) to precisely place images in 3D environments.
- Filtering and sorting images based on date data to show site documentation.
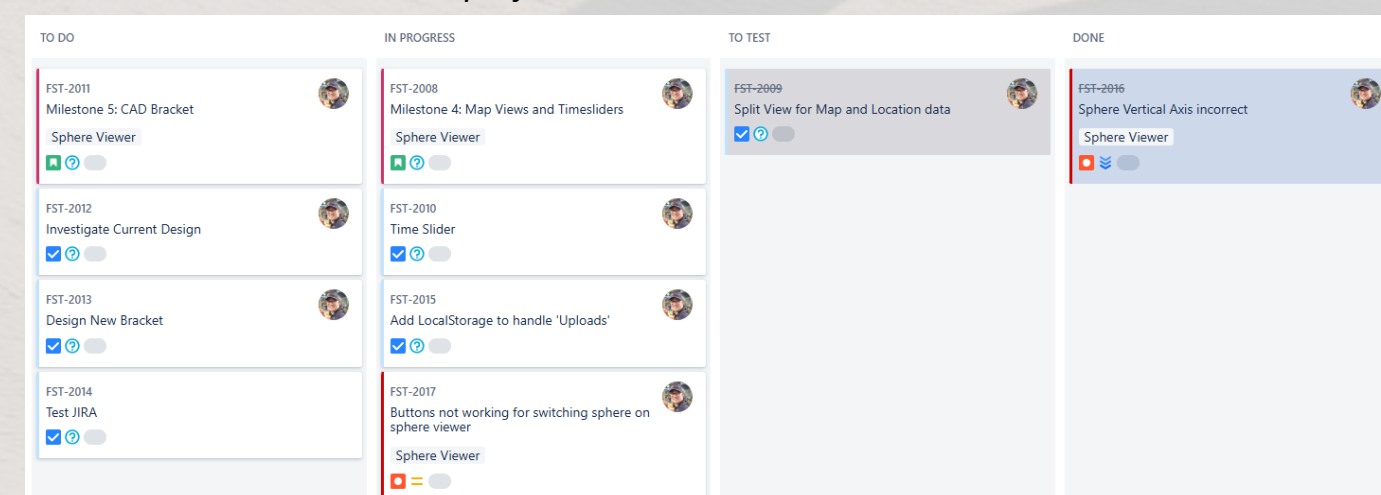
Method

This project utilised sprints for completing iterative development. Tasks would go into a backlog and a sprint would run for two weeks before being accessed. Deliverables would be tested through Test Driven Development.

Figure 1

Example of Sprint Cycles (Titov, 2023)

Figure 2

Scrumban Board used in the project

Outcomes

View the Demo!

Figure 7

Using the DA2 GPS for an accurate location

Figure 8

Capture device setup

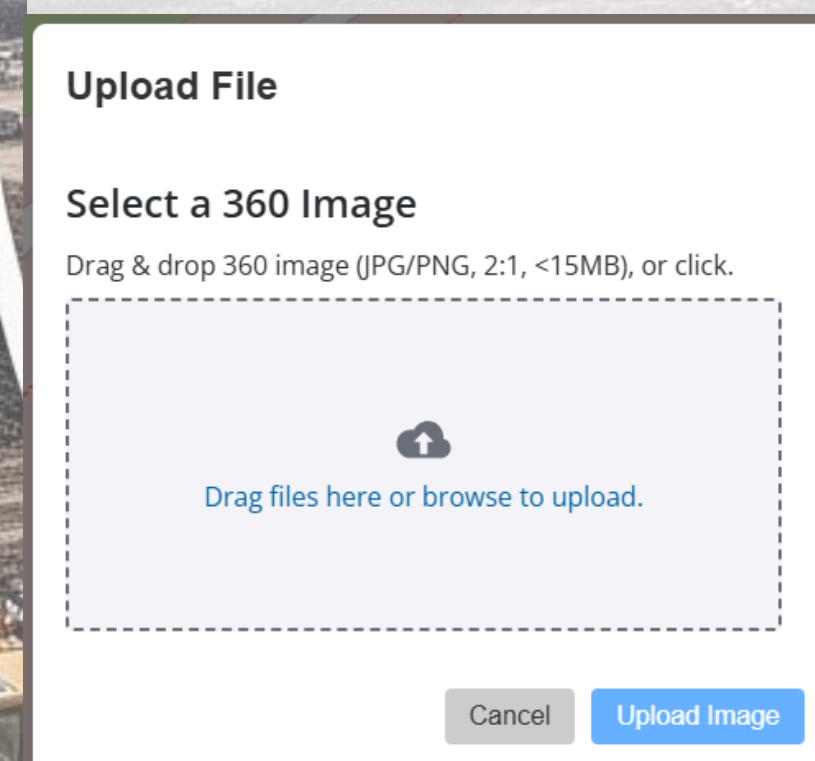
Figure 4

Image upload modal box

Upload File

Select a 360 Image

Drag & drop 360 image (JPG/PNG, 2:1, <15MB), or click.

Drag files here or browse to upload.

Cancel   Upload Image

Figure 5

Sphere Viewer component

Figure 3

3D Map with perspectives

Figure 6

List of images in the system

< Back

Spheres

- 1.jpg
- 2.jpg
- 3.jpg
- 4.jpg
- 5.jpg
- 6.jpg
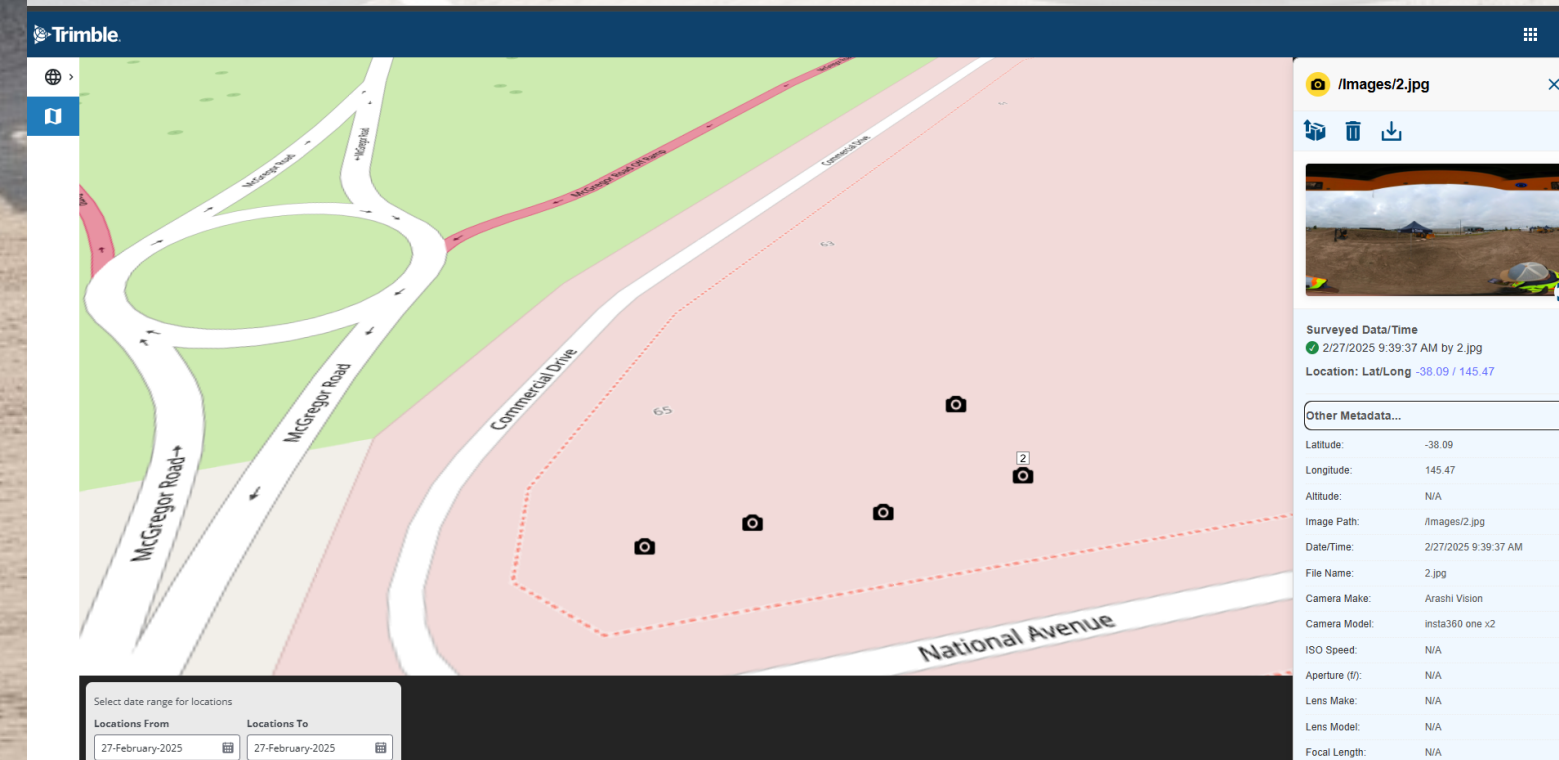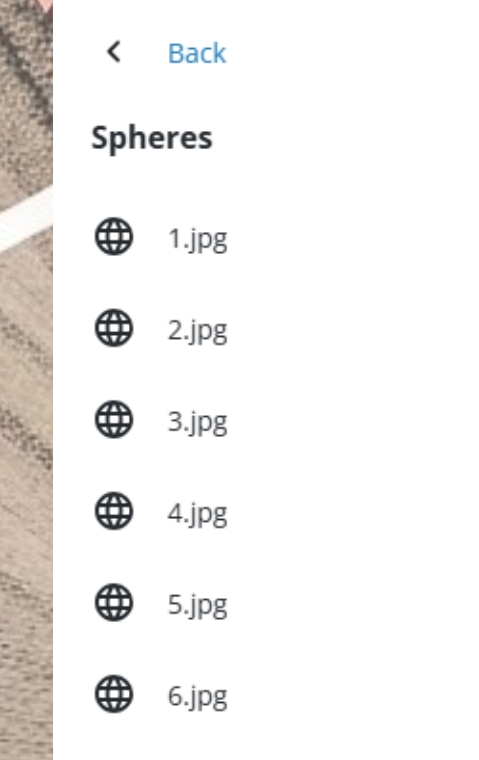
Learnings

- Developing in a professional environment.
- Applying Agile Practices into a real project.
- Learning about coordinate systems and the translations between systems.
- Working on a project as a team.
- Working with deadlines for project check points.

Conclusion

Trimble Site Viewer will allow for Trimble and Trimble customers to upload 360 degree images to the platform to use as a method of site documenting that is accurate in representation and location.

Google Workspace Gemini three.js Bitbucket Octopus Deploy JFrog Jira aws Trimble Maps CSS TS

References

1. Titov, G. (2023, December). Schematic view of the scrum with sprints flow. Retrieved June 6, 2025, from Research Gate: https://www.researchgate.net/figure/Schematic-view-of-the-Scrum-with-Sprints-flow_fig2_377275382