Replicate Antikythera User Manual

Where to find it

The files to run the program are in the main branch of our GitHub Repository. All the files in the Final Project Folder will be needed for the program to run. If you receive the folder from the professor, extract all files from the zip before running. Store them all within the same folder and download them onto your computer.

How to run it

- Navigate to where you downloaded our folder and proceed with either MobaXTerm or Microsoft Visual Studio

For Visual Studio:

- First create a new C++ console application. Name the project "AntikytheraMechanism"
- Change the version to x64
- Once this project is created take the C++ file downloaded and paste it into the project. There may be a main already created so make sure to delete that one.
- Go to vcpkg and install sqlite3:64-windows. Tutorials can be found below
  - **https://vcpkg.io/en/index.html**
  - **https://www.youtube.com/watch?v=b7SdgK7Y510**
- Build the project (Ctrl-Shift-B)
- Go to your file explorer navigate to where your solution is located. Once you get there copy both the GUI executable along with the database to the x64\Debug folder. (You should see the sqlite3.dll already included and the application itself)
- Double click the application

For MobaXTerm:

- Log into the Turing Server (turing.cs.wit.edu)
- Open a new folder (mkdir AntikytheraMechanism)
- Go into that folder (cd AntikytheraMechanism)
- Copy the downloaded contents and put it into this folder (Drag and Drop with the menu)
- Run this command (g++ AntikytheraMechanism.cpp -lsqlite3 -std=c++11 -o AntikytheraMechanism.exe)
- Enter this command (./AntikytheraMechanism.exe)

Test Case:

- Once the application is running, first enter a 1 then a 2. This will take you to the “Search by different date”
- Enter by month then day ex “1 2”
- Hit enter, this should display a meteor shower

How it works

The program will run a menu that will ask you to pick whether you wish to predict events or track planet orbit.

If you decide to track planet orbit, a program will launch with a graphic representing space. You then have the option to watch the planets orbit at their calculated speeds by clicking the orbit button, or you can choose a month or a year from the drop-down menu generated based on your decision and then click the button that says predict and see where the planets will be during that month or year. After each decision you need to click the reset button before making another decision, or you will receive an error message.

If you decide to predict events, a program will open that will provide you with a menu for what you wish to predict. Follow the menu prompts to search for the events.