

## Module 8A: Introduction to MAGNET Tools

After completion of this lesson, the student should be familiar with how MAGNET Tools is setup, the steps involved in starting a project, and how to check and create job configurations at startup.

### Introduction

MAGNET Tools is software designed mainly for working with GNSS and traverse data. It is used for post-processing static and kinematic GNSS observations and traverse data, analyzing and adjusting networks, and generating various visualizations, reports, and other forms of data output.

MAGNET Tools is also used as an interface tool for nearly all Topcon survey equipment and can help manage and view data from:

- RTK GNSS Equipment
- Total Stations
- Digital Levels
- Laser Scanners
- Imaging Equipment

MAGNET Tools works with project files. All data used in Tools will be stored in a project file and displayed in various views which will be explained in more detail later.

### Starting MAGNET Tools

To begin working with Tools, a project must first exist. Upon starting the software, the user is prompted to either open an existing project, a recent project, or create a new project.

The following process will step through starting up a new blank project and explain all of the dialogue boxes that are involved in the process.

### Start-up Wizard

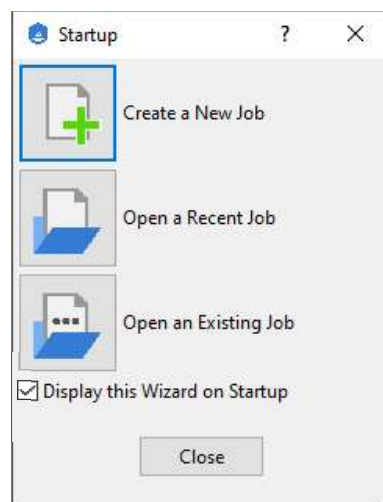
Once MAGNET Tools has started, a Start-up will open displaying options for starting a project. MAGNET Tools files are known as “**Job**” files, which contains all data in one file with the extension **.mjt**.

Creates a new Job and follows onto creating/editing Job Configuration, where default settings can be modified

Opens a Job from a list of the most recently opened

Opens an existing Job from the directory

Use this tick box to toggle on/off having the Startup Wizard display when program is started



## Creating a New Job

A dialogue box opens up after **CREATE A NEW JOB** is selected from the Start-up Wizard. In this screen, you should enter the following information into the job:

1. **JOB NAME** – Name the new project. This name will help the user identify the project later.
2. **JOB LOCATION** – Select a destination file where the project will save if you need to access it later. It is important that a sensible location be used so that you don't lose your project.
3. **CREATOR'S NAME (Optional)** – Type the name of the creator. This allows users to easily identify who initially created the project.
4. **COMMENT (Optional)** – Enter any comment regarding the project. This allows users to quickly
5. **CONFIGURATIONS** – Select from a list of default configurations or create/edit a user-defined configurations for the project.



*Configurations are explained in more detail later.*

*Other fields like “Created by” and “Comment” aren't critical fields but can be used if important to the user.*

Click **Create** to close the Create a New Job window and open the job. The title of the application window displays the name of the job.

Job Name



## Creating a New Job Wizard

Once the user decides to alter some configurations through clicking **Next** on the Create a New Job window, a start-up will open displaying options for editing job configurations.

Select display for Angle and Azimuth format

Set the viewing number of digits after the decimal for the various measurements

Select station display format

Setup the coordinate system, desired geoid, grid-ground parameters, and coordinate type for the current job

Set the GPS time and tick the box to automatically adjust the clock for daylight saving changes

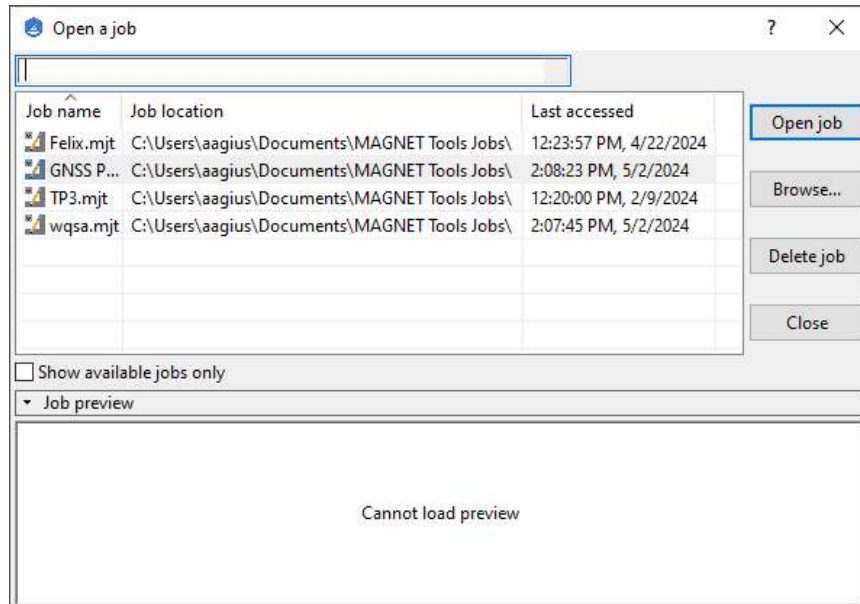
Select linear and angular units of measurement

Click **Create** to close the Create a New Job window and open the job.



## Open a Recent Job

To open a job from a list of most recent jobs accessed in Magne Tools, select **OPEN A RECENT JOB** from the Startup Wizard, and a dialogue box will appear with information such as Job Name, Job Location, Date Created, and Date Last Accessed are shown. A Job Preview is also displayed to provide the user with a graphical overview of the data contained inside the job.



## Open an Existing Job

Users can also open existing job from different destination folders where MAGNET Tools jobs are saved. In Startup Wizard, select **OPEN AN EXISTING JOB** and a window will appear allowing you to search the Job File within the computer's network or hard drive.

