**Installation Guide - Contest Log Analyzer**

Version 0.21.0-Beta

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This guide provides step-by-step instructions to set up the Contest Log Analyzer on your system. The process involves installing a Python distribution, setting up a dedicated environment, installing the required libraries, and configuring the necessary data files.

**Step 1: Prerequisites**

Before you begin, you will need to have Git installed on your system. Git is a version control system used to download the project's source code. You can download it from [git-scm.com](https://git-scm.com/).

**Step 2: Download the Project Files**

Open your command prompt or terminal and navigate to the directory where you want to store the project (e.g., your Desktop). Then, run the following command to download the project from its GitHub repository:

git clone https://github.com/kd4d/Contest-Log-Analyzer.git "Contest-Log-Analyzer"

cd "Contest-Log-Analyzer"

**Step 3: Install a Python Distribution (Miniforge)**

For this project, we recommend using the Miniforge distribution of Python. It's a lightweight installer that uses conda as its package manager and is pre-configured to use the powerful conda-forge channel, which is ideal for scientific and data analysis packages.

1. Go to the [Miniforge GitHub releases page](https://github.com/conda-forge/miniforge/releases).
2. Download the latest installer for your operating system (e.g., Miniforge3-Windows-x86\_64.exe for 64-bit Windows).
3. Run the installer. It is highly recommended that you accept the default options, especially the option to add Miniforge to your system's PATH.

**Step 4: Create and Activate a Conda Environment**

To keep the project's dependencies isolated from other Python projects, it's best practice to create a dedicated conda environment.

1. Open a new command prompt or terminal. You should see (base) at the beginning of your prompt.
2. Run the following command to create a new environment. While the code is developed with Python 3.11, it should be compatible with newer versions like 3.13. Specifying the version ensures a reproducible environment.
3. conda create --name contest-analyzer python=3.11 -y
4. Once it's created, activate the new environment:
5. conda activate contest-analyzer

Your prompt should now start with (contest-analyzer).

**Step 5: Update Conda Packages**

Before installing new libraries, it's a good practice to update all the base packages in your new environment.

conda update --all -y

**Step 6: Install Required Libraries**

With your environment active, install the required Python libraries. The shapely library is no longer needed.

conda install pandas matplotlib seaborn -y

**Step 7: Set Up the Environment Variable**

The program needs to know where to find the country data files. You must set an environment variable named CTY\_DAT\_PATH. You can do this permanently or temporarily for your current session.

* On Windows:
  + Temporary (for the current command prompt window):
  + set CTY\_DAT\_PATH="C:\path\to\your\Contest-Log-Analyzer\data\cty.dat"
  + Permanent (for your user account):
  + setx CTY\_DAT\_PATH "C:\path\to\your\Contest-Log-Analyzer\data\cty.dat"
* *(Note: You must close and reopen your command prompt for this change to take effect.)*
* On macOS/Linux:
  + Temporary (for the current terminal session):
  + export CTY\_DAT\_PATH="/path/to/your/Contest-Log-Analyzer/data/cty.dat"
  + Permanent: Add the export line above to your shell's startup file (e.g., ~/.bashrc or ~/.zshrc).

**Step 8: Download Country Data Files**

The analyzer requires at least one country file to function.

1. Download the latest universal country file, cty.dat, from [country-files.com](https://www.google.com/search?q=https://www.country-files.com/cty/cty.dat).
2. If you plan to analyze CQ WW logs, you will also need the contest-specific file, cqww.cty, from [country-files.com/cq/cqww.cty](https://www.google.com/search?q=https://www.country-files.com/cq/cqww.cty).
3. Place both files inside the data directory within your Contest-Log-Analyzer project folder.

**Step 9: Run the Analyzer**

You are now ready to run the program. Make sure you are in the Contest-Log-Analyzer directory and your contest-analyzer conda environment is active.

You can test the installation by running a report on a sample log file:

python main\_cli.py --report all Logs/2025/cq-wpx-cw/k3lr.log

If the setup was successful, you will see the program process the log and save the generated reports to the reports\_output directory.