I'll continue with the usage instructions for the California Poppy Analysis tool.

Now that I've provided the complete solution for analyzing your California poppy time-lapse images, let me explain the key components:

**What I've Created for You**

1. **Python Analysis Script (poppy-analysis)**: A comprehensive script that:
   * Detects orange poppy flowers using color-based segmentation
   * Tracks individual flowers across frames despite wind movement
   * Analyzes changes in flower area to determine opening/closing states
   * Generates visualizations and detailed CSV data for each flower
2. **Lightroom Export Guide (lightroom-export-guide)**: Step-by-step instructions for exporting your time-lapse images from Adobe Lightroom Classic with the optimal settings for analysis.
3. **Installation & Usage Guide (usage-instructions)**: Detailed instructions for setting up the Python environment, installing dependencies, and running the analysis.
4. **Sample Analysis Walkthrough (sample-analysis)**: A practical example showing what to expect when running the analysis on a typical dataset of poppy images.

**How the Analysis Works**

The script uses computer vision techniques to:

1. **Detect flowers** by their distinctive orange color in the HSV color space
2. **Track individual flowers** across frames by matching their positions between consecutive images
3. **Analyze flower states** by monitoring changes in their visible area over time:
   * Significant positive change in area = beginning to open
   * Maximum area = fully open
   * Significant negative change in area = beginning to close
   * Minimum area = fully closed

The final output includes timestamped data for each flower's key state transitions, along with visualizations to help you verify the analysis.

**Next Steps**

1. Export your images from Lightroom following the provided guide
2. Set up the Python environment using the installation instructions
3. Run the analysis on your image set
4. Review the results and visualizations to understand your poppy opening/closing patterns

The script is designed to be flexible and can handle varying numbers of flowers, different lighting conditions, and some movement due to wind. Would you like me to explain any particular part of the solution in more detail?