A screenshot of a computer

Description automatically generatedChronicle Android Raw Data Preprocessor Documentation

1. Raw Data Folder Selection
   1. This is where you select the folder containing the Chronicle Android raw data
2. Apps to Filter
   1. This is where you select the file specifying the details about the apps you would like to filter. This does not remove the apps from the final output. It labels the apps as filtered and labels their app usage separately, without calculating their duration.
   2. The file must have four columns:
      1. app\_package\_name
         * The unique name of the app package as it appears in the Chronicle Android raw data
      2. known\_application\_labels
         * All known application labels for the app, separated by commas, as they appear in the Chronicle Android raw data
      3. app\_filter\_category
         * The custom category that you want to consider the app a part of
      4. filter\_bool
         * A boolean value (0, 1, True, False) specifying whether or not you want to filter the app at this time. 1, True, etc. means that you want to filter the app, 0, False means that you do not want to filter the app.
   3. Interaction Types to Stop Usage At
      1. Same App Interaction Types to Stop Usage At
         * This is where you can select whether or not to stop at a selection of interaction types that have the same app package name as the one that started the instance of usage
      2. Other Interaction Types to Stop Usage At
         * This is where you can select whether or not to stop at a selection of interaction types that are not directly related to the app package that started the instance of usage, but could potentially be considered as stopping it.
   4. Interaction Types to Remove from Final Output
      1. This is where you can select interaction types to remove that you do not want displayed in the final output
   5. Minimum Usage Duration
      1. This is where you can specify the minimum amount of time that an app must be used for its duration to be calculated
   6. Custom App Engagement Duration
      1. Pending
   7. Timezone Handling Options
      1. Remove Data with Non-Primary Timezones
         * Find the primary (most common) timezone in the data, keep the data with that timezone and remove any data with a different timezone
      2. Convert All Data to Primary Timezone
         * Convert all timestamps to the primary (most common) timezone in the data
      3. Convert All Data to Local Timezone
         * Convert all timestamps to the local timezone
      4. Convert All Data to Specific Timezone
         * If this option is selected, you can enter a specific timezone format you want to convert the data into. You can hover over the text entry for some examples of valid timezone formats.
      5. Correct Duplicate Event Timestamps
         * Staggers event timestamps that overlap by subtracting a few nanoseconds from each
      6. Use Survey Data
         * Current disabled and a work in progress
      7. Show All Interaction Types
         * Show all interaction types that could be present in the output
      8. Run
         * Run the script with the options selected
      9. Open Output Folder
         * Opens the directory containing the output (not the exact directory containing the output)
3. Background Features
   1. Converting all Move to Foreground and Move to Background to Activity Resumed and Activity Paused
   2. Outputting configuration at time of preprocessing into output folder
   3. Attempting to properly account for duration that goes between days (after midnight)
   4. Event flags (Missing: 3 hr, 6 hr, 12 hr, 24 hr, Open: longer than 3 hr, 6 hr, 12 hr, 24 hr, continuously…)