📁 Data Combine Application Documentation

# Created by: Nico Ardian Nugroho

# Year: 2025

# 1. Introduction

This application is a user-friendly tool built with Python and ttkbootstrap for combining Excel data. It processes multiple folders containing 'Trx.xlsx' and 'Act.xlsx', merging them into a 'combined.xlsx' file that includes user metadata and logs the entire process.

# 2. Key Features

- GUI with dark/light mode toggle.

- Automatic merging of Excel sheets.

- Logging to both interface and a file.

- Real-time progress bar, elapsed time, ETA, and estimated finish time.

- Toast notifications on completion.

# 3. Requirements

- Python 3.x

- Packages: ttkbootstrap, openpyxl

# 4. Workflow Description

Step-by-step:

1. User enters Name and NIP.

2. User selects the parent folder.

3. App searches all subfolders for Trx.xlsx and Act.xlsx.

4. If found, it merges them and adds user info to a combined.xlsx file.

5. Progress, ETA, and results are shown and logged.

# 5. Core Functions

• copy\_sheet: Copies content and formatting from one sheet to another.

• log\_to\_interface: Logs messages to GUI.

• save\_log\_file: Saves logs to a timestamped file.

• process\_folder: Processes a folder, combines files, and inserts user info.

• choose\_and\_process: Initiates the folder selection and process thread.

• run\_processing: Main loop to process folders, update GUI, and handle cancellation.

• toggle\_theme: Switches between dark and light modes.

• show\_toast: Displays a toast notification.

# 6. GUI Components

• Entry fields for Name and NIP.

• Button to start process and cancel.

• Progress bar and labels for progress info.

• Toggle for dark mode.

• Scrollable text box to display logs.

# 7. Code Quality and Best Practices

- Modularized code with clear function separation.

- Handles file errors and user cancellation gracefully.

- Uses threading to keep UI responsive.

# 8. Final Notes

This tool is tailored for batch processing of Excel files in organizational environments. Make sure the file naming conventions (Trx.xlsx and Act.xlsx) are followed.