

Documentation for Warning Message Feature

1. Introduction

This feature enhances real-time crowd detection by providing warnings when specific conditions related to crowd movement or density are met. The warning message is integrated within the final code and is designed to ensure timely alerts in situations requiring immediate attention.

2. Purpose

The purpose of this feature is to alert the system operator when unusual or rapid movement occurs in the crowd, enabling them to take necessary actions to ensure safety and manage the situation effectively.

3. Implementation Details

The warning message is triggered based on predefined thresholds for crowd behavior, such as:

- **Rapid crowd movement**
- **Sudden increase in the number of people detected in a short time**

The code block responsible for generating the warning is embedded within the real-time detection loop.

4. User Interface

The warning message is displayed on the video feed in real-time. A red alert box appears on the screen with the message "**Warning: Rapid Movement in Crowd**" when the specified condition is met. The message is positioned near the detected individuals.

