MAPPING CLASSES TO LABELS IN YOLO

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INTRODUCTION

- YOLOv7, short for "You Only Look Once version 7," is a state-of-the-art object detection algorithm.
- It is an evolution of the YOLO (You Only Look Once) series, aiming to improve performance and efficiency in real-time object detection tasks.

MAPPING CLASSES INTO LABELS

- Each class is assigned a numerical label corresponding to its position in the list, starting from 0.
- For example, "Unintended Eccentricities" is assigned the label 0, "Loss of Material" is assigned the label 1, and so on, up to "Reinforcement Spotted" assigned the label 30.

Mapping Classes to Labels

- **Unintended Eccentricities** - Class label: 0
- **Loss of Material** - Class label: 1
- **Displacement of stones** - Class label: 2
- **Reinforcement Exposed** - Class label: 3
- **Cracks** - Class label: 4
- **Sourcing and Deteriorated Stones** - Class label: 5
- **Loss of Material with reinforcement exposed** - Class label: 6
- **Cavities** - Class label: 7
- **Concrete degradation and exposed reinforcement** - Class label: 8
- **Mild cavities** - Class label: 9
- **Concrete degradation** - Class label: 10
- **Honey Combing** - Class label: 11
- **Deteriorated Stones/bricks** - Class label: 12
- **Deteriorated joint** - Class label: 13
- **Loss of pointing Mortar** - Class label: 14
- **Presence of debris/Rocks/Tree-Trunks** - Class label: 15
- **Minor cavity** - Class label: 16
- **Loss of pointing mortar and deposits of debris** - Class label: 17
- **Distressed Joints** - Class label: 18
- **Unintended Eccentricities P1 Highlight** - Class label: 19
- **Material Deterioration/ Delamination** - Class label: 20
- **Material disintegration** - Class label: 21
- **Spalling of gunniting** - Class label: 23
- **Deposits of debris/Rocks/Tree-Trunks** - Class label: 24
- **Abrasion** - Class label: 25
- **Pipe/debris noted** - Class label: 28
- **Material Loss/Disintegration** - Class label: 29
- **Reinforcement Spotted** - Class label: 30

- By associating specific classes with numerical labels, we enable the model to identify and classify various features within images accurately.

CONCLUSION

THANK YOU