



## **Class GenerateBoxes**

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- Defined in [File generate\\_boxes.hpp](#)

## Inheritance Relationships

### Base Type

- `public holoscan::inference::TransformBase` ([Class TransformBase](#))

## Class Documentation

class GenerateBoxes : public holoscan::inference::TransformBase

Generate boxes Transform Class.

Public Functions

`inline GenerateBoxes()`

Default Constructor.

`inline explicit GenerateBoxes(const std::string &config_path)`

Explicit Constructor.

`~GenerateBoxes()` override = default

Default Destructor.

`virtual InferStatus initialize(const std::vector<std::string> &input_tensors)`

Initializer. Parses the config file and populates all required variables to be used in the execution process.

Parameters

**input\_tensors** – Input tensors from inference operator

Returns

InferStatus

InferStatus create\_tensor\_map(const std::vector<std::string> &input\_tensors)

Create a tensor mapping of pre-defined tensors of the class to incoming tensors from inference operator.

Parameters

**input\_tensors** – Input tensors from inference operator

Returns

InferStatus

virtual InferStatus execute(const std::map<std::string, void\*> &indata, const std::map<std::string, std::vector<int>> &indim, [DataMap](#) &processed\_data, [DimType](#) &processed\_dims)

Core execution. Ingests input data with tensor names as “scores”, “labels” and “boxes”. Finds the valid boxes and text and populates the tensors and coordinates to be used in holoviz.

Parameters

- **indata** – [Map](#) with key as tensor name as value as raw data buffer
- **indim** – [Map](#) with key as tensor name as value as dimension of the input tensor
- **processed\_data** – Output data map, that will be populated
- **processed\_dims** – Dimension of the output tensor, is populated during the processing

Returns

InferStatus

InferStatus execute\_mask(const std::map<std::string, void\*> &indata, const std::map<std::string, std::vector<int>> &indim, [DataMap](#) &processed\_data, [DimType](#) &processed\_dims)

Ingests input data with tensor names as "scores", "labels" and "masks". Finds the object masks and prepares it for rendering in holoviz.

#### Parameters

- **indata** – Map with key as tensor name and value as raw data buffer
- **indim** – Map with key as tensor name and value as dimension of the input tensor
- **processed\_data** – Output data map, that will be populated
- **processed\_dims** – Dimension of the output tensor, is populated during the processing

#### Returns

InferStatus

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