

## tf.contrib.metrics.streaming\_precision

```
streaming_precision(  
    predictions,  
    labels,  
    weights=None,  
    metrics_collections=None,  
    updates_collections=None,  
    name=None  
)
```

Defined in [tensorflow/contrib/metrics/python/ops/metric\\_ops.py](#).

See the guide: [Metrics \(contrib\)](#) > [Metric Ops](#)

Computes the precision of the predictions with respect to the labels.

The `streaming_precision` function creates two local variables, `true_positives` and `false_positives`, that are used to compute the precision. This value is ultimately returned as `precision`, an idempotent operation that simply divides `true_positives` by the sum of `true_positives` and `false_positives`.

For estimation of the metric over a stream of data, the function creates an `update_op` operation that updates these variables and returns the `precision`. `update_op` weights each prediction by the corresponding value in `weights`.

If `weights` is `None`, weights default to 1. Use weights of 0 to mask values.

#### Args:

- `predictions`: The predicted values, a `bool Tensor` of arbitrary shape.
- `labels`: The ground truth values, a `bool Tensor` whose dimensions must match `predictions`.
- `weights`: `Tensor` whose rank is either 0, or the same rank as `labels`, and must be broadcastable to `labels` (i.e., all dimensions must be either 1, or the same as the corresponding `labels` dimension).
- `metrics_collections`: An optional list of collections that `precision` should be added to.
- `updates_collections`: An optional list of collections that `update_op` should be added to.
- `name`: An optional variable\_scope name.

#### Returns:

- `precision`: Scalar float `Tensor` with the value of `true_positives` divided by the sum of `true_positives` and `false_positives`.
- `update_op`: `Operation` that increments `true_positives` and `false_positives` variables appropriately and whose value matches `precision`.

#### Raises:

- `ValueError`: If `predictions` and `labels` have mismatched shapes, or if `weights` is not `None` and its shape doesn't match `predictions`, or if either `metrics_collections` or `updates_collections` are not a list or tuple.

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