

## tf.boolean\_mask

```
boolean_mask(  
    tensor,  
    mask,  
    name='boolean_mask'  
)
```

Defined in [tensorflow/python/ops/array\\_ops.py](#).

See the guide: [Tensor Transformations > Slicing and Joining](#)

Apply boolean mask to tensor. Numpy equivalent is `tensor[mask]`.

```
# 1-D example  
tensor = [0, 1, 2, 3]  
mask = np.array([True, False, True, False])  
boolean_mask(tensor, mask) # [0, 2]
```

In general,  $0 < \text{dim}(\text{mask}) = K \leq \text{dim}(\text{tensor})$ , and `mask`'s shape must match the first  $K$  dimensions of `tensor`'s shape. We then have: `boolean_mask(tensor, mask)[i, j1, ..., jd] = tensor[i1, ..., iK, j1, ..., jd]` where  $(i1, \dots, iK)$  is the  $i$ th `True` entry of `mask` (row-major order).

## Args:

- `tensor`: N-D tensor.
- `mask`: K-D boolean tensor,  $K \leq N$  and  $K$  must be known statically.
- `name`: A name for this operation (optional).

## Returns:

(N-K+1)-dimensional tensor populated by entries in `tensor` corresponding to `True` values in `mask`.

## Raises:

- `ValueError`: If shapes do not conform.

## Examples:

```
# 2-D example  
tensor = [[1, 2], [3, 4], [5, 6]]  
mask = np.array([True, False, True])  
boolean_mask(tensor, mask) # [[1, 2], [5, 6]]
```

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