

## tf.summary.scalar

```
scalar(  
    name,  
    tensor,  
    collections=None,  
    family=None  
)
```

Defined in [tensorflow/python/summary/summary.py](#).

See the guide: [Summary Operations > Generation of Summaries](#)

Outputs a **Summary** protocol buffer containing a single scalar value.

The generated Summary has a Tensor.proto containing the input Tensor.

### Args:

- **name** : A name for the generated node. Will also serve as the series name in TensorBoard.
- **tensor** : A real numeric Tensor containing a single value.
- **collections** : Optional list of graph collections keys. The new summary op is added to these collections. Defaults to **[GraphKeys.SUMMARIES]**.
- **family** : Optional; if provided, used as the prefix of the summary tag name, which controls the tab name used for display on Tensorboard.

### Returns:

A scalar **Tensor** of type **string**. Which contains a **Summary** protobuf.

### Raises:

- **ValueError** : If tensor has the wrong shape or type.

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Last updated November 2, 2017.

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