tf.contrib.training.create_train_op

```
create_train_op(
    total_loss,
    optimizer,
    global_step=_USE_GLOBAL_STEP,
    update_ops=None,
    variables_to_train=None,
    transform_grads_fn=None,
    summarize_gradients=False,
    gate_gradients=tf_optimizer.Optimizer.GATE_OP,
    aggregation_method=None,
    colocate_gradients_with_ops=False,
    check_numerics=True
)
```

Defined in `tensorflow/contrib/training/python/training/training.py` .

Creates an `Operation` that evaluates the gradients and returns the loss.

Args:

- `total_loss` : A `Tensor` representing the total loss.
- `optimizer` : A tf.Optimizer to use for computing the gradients.
- `global_step` : A `Tensor` representing the global step variable. If left as `_USE_GLOBAL_STEP` , then tf.contrib.framework.global_step() is used.
- `update_ops` : An optional list of updates to execute. If `update_ops` is `None` , then the update ops are set to the contents of the `tf.GraphKeys.UPDATE_OPS` collection. If `update_ops` is not `None` , but it doesn't contain all of the update ops in `tf.GraphKeys.UPDATE_OPS` , a warning will be displayed.
- `variables_to_train` : an optional list of variables to train. If None, it will default to all tf.trainable_variables().
- `transform_grads_fn` : A function which takes a single argument, a list of gradient to variable pairs (tuples), performs any requested gradient updates, such as gradient clipping or multipliers, and returns the updated list.
- `summarize_gradients` : Whether or not add summaries for each gradient.
- `gate_gradients` : How to gate the computation of gradients. See tf.Optimizer.
- `aggregation_method` : Specifies the method used to combine gradient terms. Valid values are defined in the class `AggregationMethod` .
- `colocate_gradients_with_ops` : Whether or not to try colocating the gradients with the ops that generated them.
- `check_numerics` : Whether or not we apply check_numerics.

Returns:

A `Tensor` that when evaluated, computes the gradients and returns the total loss value.

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