tf.contrib.gan.losses.wargs.wasserstein_gradient_penalty

```
wasserstein_gradient_penalty(
    real_data,
    generated_data,
    generator_inputs,
    discriminator_fn,
    discriminator_scope,
    epsilon=1e-10,
    weights=1.0,
    scope=None,
    loss_collection=tf.GraphKeys.LOSSES,
    reduction=losses.Reduction.SUM_BY_NONZERO_WEIGHTS,
    add_summaries=False
)
```

Defined in `tensorflow/contrib/gan/python/losses/python/losses_impl.py`.

The gradient penalty for the Wasserstein discriminator loss.

See `Improved Training of Wasserstein GANs` (https://arxiv.org/abs/1704.00028) for more details.

Args:

- `real_data`: Real data.
- `generated_data`: Output of the generator.
- `generator_inputs`: Exact argument to pass to the generator, which is used as optional conditioning to the discriminator.
- `discriminator_fn`: A discriminator function that conforms to TFGAN API.
- `discriminator_scope`: If not `None`, reuse discriminators from this scope.
- `epsilon`: A small positive number added for numerical stability when computing the gradient norm.
- `weights`: Optional `Tensor` whose rank is either 0, or the same rank as `real_data` and `generated_data`, and must be broadcastable to them (i.e., all dimensions must be either `1`, or the same as the corresponding dimension).
- `scope`: The scope for the operations performed in computing the loss.
- `loss_collection`: collection to which this loss will be added.
- `reduction`: A `tf.losses.Reduction` to apply to loss.
- `add_summaries`: Whether or not to add summaries for the loss.

Returns:

A loss Tensor. The shape depends on `reduction`.

Raises:

- `ValueError`: If the rank of data Tensors is unknown.

Last updated November 2, 2017.