

tf.train.Server

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Class Server

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

See the guide: [Training > Distributed execution](#)

An in-process TensorFlow server, for use in distributed training.

A `tf.train.Server` instance encapsulates a set of devices and a `tf.Session` target that can participate in distributed training. A server belongs to a cluster (specified by a `tf.train.ClusterSpec`), and corresponds to a particular task in a named job. The server can communicate with any other server in the same cluster.

Properties

server_def

Returns the `tf.train.ServerDef` for this server.

Returns:

A `tf.train.ServerDef` protocol buffer that describes the configuration of this server.

target

Returns the target for a `tf.Session` to connect to this server.

To create a `tf.Session` that connects to this server, use the following snippet:

```
server = tf.train.Server(...)
with tf.Session(server.target):
    # ...
```

Returns:

A string containing a session target for this server.

Methods

`__init__`

```
__init__(
    server_or_cluster_def,
    job_name=None,
    task_index=None,
    protocol=None,
    config=None,
    start=True
)
```

Creates a new server with the given definition.

The `job_name`, `task_index`, and `protocol` arguments are optional, and override any information provided in `server_or_cluster_def`.

Args:

- `server_or_cluster_def`: A `tf.train.ServerDef` or `tf.train.ClusterDef` protocol buffer, or a `tf.train.ClusterSpec` object, describing the server to be created and/or the cluster of which it is a member.
- `job_name`: (Optional.) Specifies the name of the job of which the server is a member. Defaults to the value in `server_or_cluster_def`, if specified.
- `task_index`: (Optional.) Specifies the task index of the server in its job. Defaults to the value in `server_or_cluster_def`, if specified. Otherwise defaults to 0 if the server's job has only one task.
- `protocol`: (Optional.) Specifies the protocol to be used by the server. Acceptable values include `"grpc"`. Defaults to the value in `server_or_cluster_def`, if specified. Otherwise defaults to `"grpc"`.
- `config`: (Options.) A `tf.ConfigProto` that specifies default configuration options for all sessions that run on this server.
- `start`: (Optional.) Boolean, indicating whether to start the server after creating it. Defaults to `True`.

Raises:

- `tf.errors.OpError`: Or one of its subclasses if an error occurs while creating the TensorFlow server.

`create_local_server`

```
@staticmethod
create_local_server(
    config=None,
    start=True
)
```

Creates a new single-process cluster running on the local host.

This method is a convenience wrapper for creating a `tf.train.Server` with a `tf.train.ServerDef` that specifies a single-process cluster containing a single task in a job called `"local"`.

Args:

- `config`: (Options.) A `tf.ConfigProto` that specifies default configuration options for all sessions that run on this server.

- `start` : (Optional.) Boolean, indicating whether to start the server after creating it. Defaults to `True` .

Returns:

A local `tf.train.Server` .

join

```
join()
```

Blocks until the server has shut down.

This method currently blocks forever.

Raises:

- `tf.errors.OpError` : Or one of its subclasses if an error occurs while joining the TensorFlow server.

start

```
start()
```

Starts this server.

Raises:

- `tf.errors.OpError` : Or one of its subclasses if an error occurs while starting the TensorFlow server.

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