TensorFlow

TensorFlow   API r1.4

tfdbg.DebugTensorDatum

Class `DebugTensorDatum`

Defined in [`tensorflow/python/debug/lib/debug_data.py`](#) .

See the guide: [TensorFlow Debugger > Classes for debug-dump data and directories](#)

A single tensor dumped by TensorFlow Debugger (tfdbg).

Contains metadata about the dumped tensor, including `timestamp` , `node_name` , `output_slot` , `debug_op` , and path to the dump file (`file_path`).

This type does not hold the generally space-expensive tensor value (numpy array). Instead, it points to the file from which the tensor value can be loaded (with the `get_tensor` method) if needed.

Properties

`debug_op`

Name of the debug op.

Returns:

(`str`) debug op name (e.g., `DebugIdentity`).

`device_name`

Name of the device that the tensor belongs to.

Returns:

(`str`) device name.

`dump_size_bytes`

Size of the dump file.

Unit: byte.

Returns:

If the dump file exists, size of the dump file, in bytes. If the dump file does not exist, None.

`extended_timestamp`

Extended timestamp, possibly with an index suffix.

The index suffix, e.g., "-1", is for disambiguating multiple dumps of the same tensor with the same timestamp, which can occur if the dumping events are spaced by shorter than the temporal resolution of the timestamps.

Returns:

(`str`) The extended timestamp.

`file_path`

Path to the file which stores the value of the dumped tensor.

`node_name`

Name of the node from which the tensor value was dumped.

Returns:

(`str`) name of the node watched by the debug op.

`output_slot`

Output slot index from which the tensor value was dumped.

Returns:

(`int`) output slot index watched by the debug op.

`tensor_name`

Name of the tensor watched by the debug op.

Returns:

(`str`) `Tensor` name, in the form of `node_name` : `output_slot`

`timestamp`

Timestamp of when this tensor value was dumped.

Returns:

(`int`) The timestamp in microseconds.

watch_key

Watch key identities a debug watch on a tensor.

Returns:

(`str`) A watch key, in the form of `tensor_name` : `debug_op` .

Methods

__init__

```
__init__(
    dump_root,
    debug_dump_rel_path
)
```

`DebugTensorDatum` constructor.

Args:

- `dump_root` : (`str`) Debug dump root directory. This path should not include the path component that represents the device name (see also below).
- `debug_dump_rel_path` : (`str`) Path to a debug dump file, relative to the `dump_root` . The first item of this relative path is assumed to be a path representing the name of the device that the Tensor belongs to. See `device_path_to_device_name` for more details on the device path. For example, suppose the debug dump root directory is `/tmp/tfdbg_1` and the dump file is at `/tmp/tfdbg_1/<device_path>/>ns_1/node_a_0_DebugIdentity_123456789` , then the value of the debug_dump_rel_path should be `<device_path>/ns_1/node_a_0_DebugIdenity_1234456789` .

Raises:

- `ValueError` : If the base file name of the dump file does not conform to the dump file naming pattern: `node_name` `output_slot` `debug_op` _ `timestamp`

get_tensor

```
get_tensor()
```

Get tensor from the dump (`Event`) file.

Returns:

The tensor loaded from the dump (`Event`) file.

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