syntax = "proto3";

package tensorflow;

import "tensorflow/core/framework/allocation\_description.proto";

import "tensorflow/core/framework/tensor\_description.proto";

option cc\_enable\_arenas = true;

option java\_outer\_classname = "StepStatsProtos";

option java\_multiple\_files = true;

option java\_package = "org.tensorflow.framework";

option go\_package = "github.com/tensorflow/tensorflow/tensorflow/go/core/framework/step\_stats\_go\_proto";

// An allocation/de-allocation operation performed by the allocator.

message AllocationRecord {

// The timestamp of the operation.

int64 alloc\_micros = 1;

// Number of bytes allocated, or de-allocated if negative.

int64 alloc\_bytes = 2;

}

message AllocatorMemoryUsed {

string allocator\_name = 1;

// These are per-node allocator memory stats.

int64 total\_bytes = 2;

int64 peak\_bytes = 3;

// The bytes that are not deallocated.

int64 live\_bytes = 4;

// The allocation and deallocation timeline.

repeated AllocationRecord allocation\_records = 6;

// These are snapshots of the overall allocator memory stats.

// The number of live bytes currently allocated by the allocator.

int64 allocator\_bytes\_in\_use = 5;

}

// Output sizes recorded for a single execution of a graph node.

message NodeOutput {

int32 slot = 1;

TensorDescription tensor\_description = 3;

}

// For memory tracking.

message MemoryStats {

int64 temp\_memory\_size = 1;

int64 persistent\_memory\_size = 3;

repeated int64 persistent\_tensor\_alloc\_ids = 5;

int64 device\_temp\_memory\_size = 2 [deprecated = true];

int64 device\_persistent\_memory\_size = 4 [deprecated = true];

repeated int64 device\_persistent\_tensor\_alloc\_ids = 6 [deprecated = true];

}

// Time/size stats recorded for a single execution of a graph node.

message NodeExecStats {

// TODO(tucker): Use some more compact form of node identity than

// the full string name. Either all processes should agree on a

// global id (cost\_id?) for each node, or we should use a hash of

// the name.

string node\_name = 1;

int64 all\_start\_micros = 2;

int64 op\_start\_rel\_micros = 3;

int64 op\_end\_rel\_micros = 4;

int64 all\_end\_rel\_micros = 5;

repeated AllocatorMemoryUsed memory = 6;

repeated NodeOutput output = 7;

string timeline\_label = 8;

int64 scheduled\_micros = 9;

uint32 thread\_id = 10;

repeated AllocationDescription referenced\_tensor = 11;

MemoryStats memory\_stats = 12;

int64 all\_start\_nanos = 13;

int64 op\_start\_rel\_nanos = 14;

int64 op\_end\_rel\_nanos = 15;

int64 all\_end\_rel\_nanos = 16;

int64 scheduled\_nanos = 17;

}

message DeviceStepStats {

string device = 1;

repeated NodeExecStats node\_stats = 2;

// Its key is thread id.

map<uint32, string> thread\_names = 3;

}

message StepStats {

repeated DeviceStepStats dev\_stats = 1;

}