syntax = "proto3";

package tensorflow;

option cc\_enable\_arenas = true;

option java\_outer\_classname = "ControlFlowProtos";

option java\_multiple\_files = true;

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

option go\_package = "github.com/tensorflow/tensorflow/tensorflow/go/core/protobuf/for\_core\_protos\_go\_proto";

// Control flow context related protocol buffers.

// Protocol buffer representing the values in ControlFlowContext.

message ValuesDef {

// Value names that have been seen in this context.

repeated string values = 1;

// Value names referenced by but external to this context.

map<string, string> external\_values = 2;

}

// Container for any kind of control flow context. Any other control flow

// contexts that are added below should also be added here.

message ControlFlowContextDef {

oneof ctxt {

CondContextDef cond\_ctxt = 1;

WhileContextDef while\_ctxt = 2;

}

}

// Protocol buffer representing a CondContext object.

message CondContextDef {

// Name of the context.

string context\_name = 1;

// Name of the pred tensor.

string pred\_name = 2;

// Name of the pivot tensor.

string pivot\_name = 3;

// Branch prediction. 0 or 1.

int32 branch = 4;

// Values and external values in control flow context.

ValuesDef values\_def = 5;

// Contexts contained inside this context (e.g. nested conds).

repeated ControlFlowContextDef nested\_contexts = 6;

}

// Protocol buffer representing a WhileContext object.

message WhileContextDef {

// Name of the context.

string context\_name = 1;

// The number of iterations allowed to run in parallel.

int32 parallel\_iterations = 2;

// Whether backprop is enabled for this while loop.

bool back\_prop = 3;

// Whether GPU-CPU memory swap is enabled for this loop.

bool swap\_memory = 4;

// Name of the pivot tensor.

string pivot\_name = 5;

// Name of the pivot\_for\_pred tensor.

string pivot\_for\_pred\_name = 6;

// Name of the pivot\_for\_body tensor.

string pivot\_for\_body\_name = 7;

// List of names for exit tensors.

repeated string loop\_exit\_names = 8;

// List of names for enter tensors.

repeated string loop\_enter\_names = 10;

// Values and external values in control flow context.

ValuesDef values\_def = 9;

// Optional name of the maximum\_iterations tensor.

string maximum\_iterations\_name = 11;

// Contexts contained inside this context (e.g. nested whiles).

repeated ControlFlowContextDef nested\_contexts = 12;

// Next available id: 13.

}