Generate GIF animations from DIA graph

1. Introduction

To support research into automatic perception, I needed input data with specific characteristics. The most natural way to get such input data was to create carefully controlled animation sequences.

2. Usage

The Dia (http://live.gnome.org/Dia) diagram editor is used to create a schematic of a scene. The schematic represents static (non-moving) and dynamic (moving) objects. In general Dia graphic objects will become static objects in the animation. The exception is when two Dia graphic objects are connected by a line. A connecting line indicates that the two endpoint graphics represent *multiple observations* of the SAME physical object.

Layers are used within Dia to simplify creating many animations with the same static objects in them. For instance, I created a background layer of static objects representing a traffic intersection (including objects such as: medians, lane markings, sidewalks, crosswalks, and buildings on the corners).