```
let bounce_ball out =
  perform (
      h <-- new_unknown ; v_next <-- new_unknown ;
      v <-- der h ; a <-- der v ;
      _ <-- start (h, 10.) ;

      _ <-- add_equation (  (* v_next = -0.7 v *)
        Linear ( [| v ; v_next |], [| 0.7 ; 1. |], 0. ) ) ;

      _ <-- add_equation (  (* a = -9.81 *)
        Linear ( [| a |], [| 1. |], 9.81 ) ) ;

      log_output [| h , v, v_next |] ;

      contact <-- add_relation {
        base_rel = Linear([| h |], [| 1. |], 0.) ;
        sign = Lt
      } ;

      let bounce = {
        signal = Relation contact ;
        requires_reinit = true;
        effects = perform (
            vn_ <-- sim_value_of v_next ;
             _ <-- sim_set_value v vn_ ;
            return ()
        )
      } in

      _ <-- add_event bounce ;

      return (object method h = h method v = v end)
)
```