1 Variables implementation in Gecode

I only look at IntVar since FloatVar is not relevant for the thesis and BoolVar is implemented using the same methods as IntVar.

1.1 IntVarImp

Heritage from IntVarImpBase, which is a generic class (it does not contain much as far as I can find). The constructor takes min and max as argument or an IntSet. The most intuitive operations are: min, max, width, median (rounded down). closer_min, a boolean that tells if an int is closer to min than max. val returns min if min==max, range returns true or false based on fst()?. Assigned returns min==max, size returns width - holes, where holes is number of values between min and max not posible. The last two are min and max regret (distance to next value from min/max). One can check it a value is in the domain of the int with the method in.
It uses a rangelist as iterator and supports delta information (an event i think). Several methods that tells how the domain is compared (lq,gq,eq,nq) to an int, is ME_INT_FAILED/VAL/BND (ME = modEvent).
Iterator based domain operation. Can narrow range (remove some of the ranges, all or none), a rather complex method (lot of loops and cases). That method is used en sevaral others methods intersect, minus both on values and ranges.
A copy method.
Methods for subscribing and cancel to propagator and advisor.

1.2 IntView

Have the same functions as IntVar and also derived from a class VarImpView. It is a view of a variable and have the same access operators but can also access ME, schedule propagators and construct modification event delta.

1.3 IntSet

Have lot of the same operations as intVar.

1.4 IntVar

Creates a IntVarImp when constructed that is used for all of the same methods as IntVarImp.

1.5 IntVarArray

Dervied from VarArray that contain a var type, in this case IntVar.