**AbstractObjects**

The abstract object is a basic abstraction of symbolic values and memory locations implemented by the dataflow framework. The AbstractObject has three main types.

MemLocObject

ValueObject

CodeLocObject

**MemLocObject**

MemLocObject is an abstraction for memory locations. It has four basic types identified based on the memory organization

1. Scalar – no memory organization
2. LabeledAggregate – struct/class
3. Pointer – objects that may point to others
4. Array – contiguous sequences of memory objects

**Composer:**

The Composer serves as the intermediary between different analyses. A client analysis queries the composer and the composer responds by returning appropriate abstract object from previously executed analyses. The composer implements the following interface.

ValueObjectPtr Expr2Val()

ValueObjectPrt OperandExpr2Val()

MemLocObjectPtrPair Expr2MemLoc()

MemLocObjectPtrPair OperandExpr2MemLoc()

CodeLocObjectPtrPair Expr2CodeLoc()

PartPtr GetFunctionStartPart()

PartPtr GetFunctionEndPart()

ChainComposer implements the functionality of the composer (compose.C).

**ComposedAnalysis**