Identifying an objects usage in Casal2

In Casal2 there are two ways of finding how an object is being used within the system. Where usage types are found BaseClasses/Object.h

  kNone           = 0,

  kLookup         = 1,  // Assert, Additional Prior, Equation, Reports

  kEstimate       = 2,

  kInputRun       = 4,

  kProfile        = 8,

  kProject        = 16,

  kSimulate       = 32,

  kSingleStep     = 64,

  kTimeVarying    = 128,

  kTransformation = 256,

  kAll            = 511

It is often useful to check how an object is being used for validation purposes. I.e., you should not be able to estimate a parameter that has a transformation or is being time-varied because it is unclear what class will end up changing the underlying object.

There are two ways to check an objects usage within a class and the method depends on if the object is a member of the class or belongs to another class. If the object belongs to another class, the only way to check its usage is to pass the absolute parameter name (block[label].subcommand) to the following model function

model->objects().IsParameterUsedFor(parameter\_ , addressable::kTransformation)

If the object is part of the class, then they can use the base class method

IsAddressableUsedFor(PARAM\_SIMPLEX\_PARAMETER, addressable::kTransformation)

This can be called within the class because all objects inherit the baseclass. It is quite nice because you can provide the parameter label which will keep syntax consistent.