3.1 Use cases

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We have already created a number of use cases (GOTO use cases). However, these do not seem to be practically useful for the version 2 development at this stage. In order to simplify things a bit we looked at different categories of components that should be equally supported by version 2.

Domain analysis:

Types of components:

1. **A constant value provider**(e.g. the value 7.1)

2. **0D component** (typically a time series or a collection of time series.
   Such component may or may not have any spatial location.

3. **GIS**type of components. (no time)
   Such components may or may not have time, simply location (e.g. a polygons and associated values.

4. **Analytic function** (f(x,y,z,t))
   Components based on analytic functions may have both time and space or only one of these. However, what makes such component special in relation to OpenMI is that data is not beforehand represented on any discrete geometry (e.g. grid) or at any specific timestamps or time spans.

5. **Data base** or other simple data providers
   These are different from models because you will have access to all data at any time, as compared to models where you may not be able request data earlier that the current time step time.

6. **Model** The time-stepping type of models (has states and problems going back in time)

7. **Optimizer and scenario managers** types of components.

When Open version 1.* was developed focus was on linking models (type 6 above). All remaining types can be made compliant to OpenMI 1.* , but you need various workarounds to make it work. It is the intention with version 2 to solve this, so that each of the examples above are supported in a straightforward way.