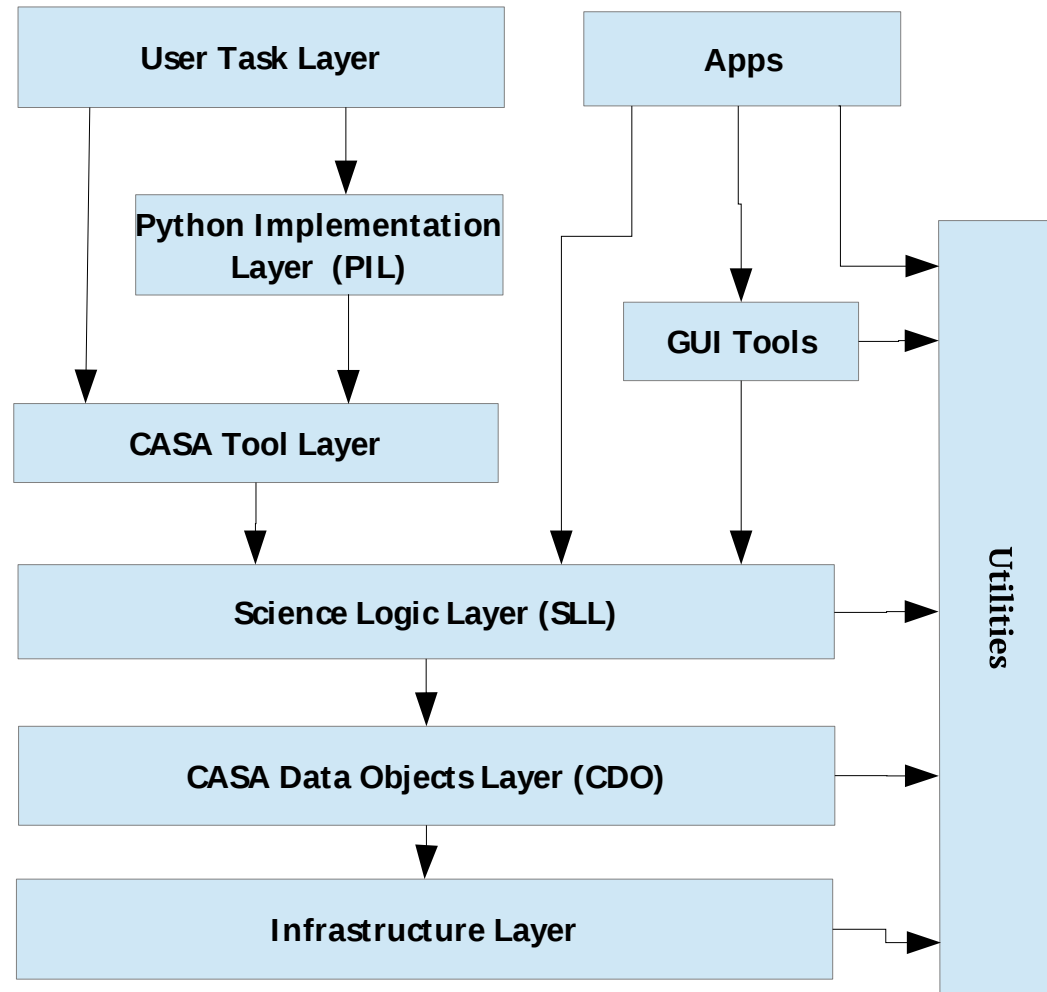


VisibilityIterator2 & VisBuffer2

*The true mystery of the world is the visible,
not the invisible*

—Oscar Wilde

CASA Overall Architecture



VI/VB II Goals

- Fix VI/VB software engineering shortcomings
 - Remove direct access to component elements through calls such as
 - `Array<T> & it ()`
 - Replace with
 - `const Array<T> & it() const`
 - `void setIt (const Array<T> & f)`

VI/VB II Goals (cont'd)

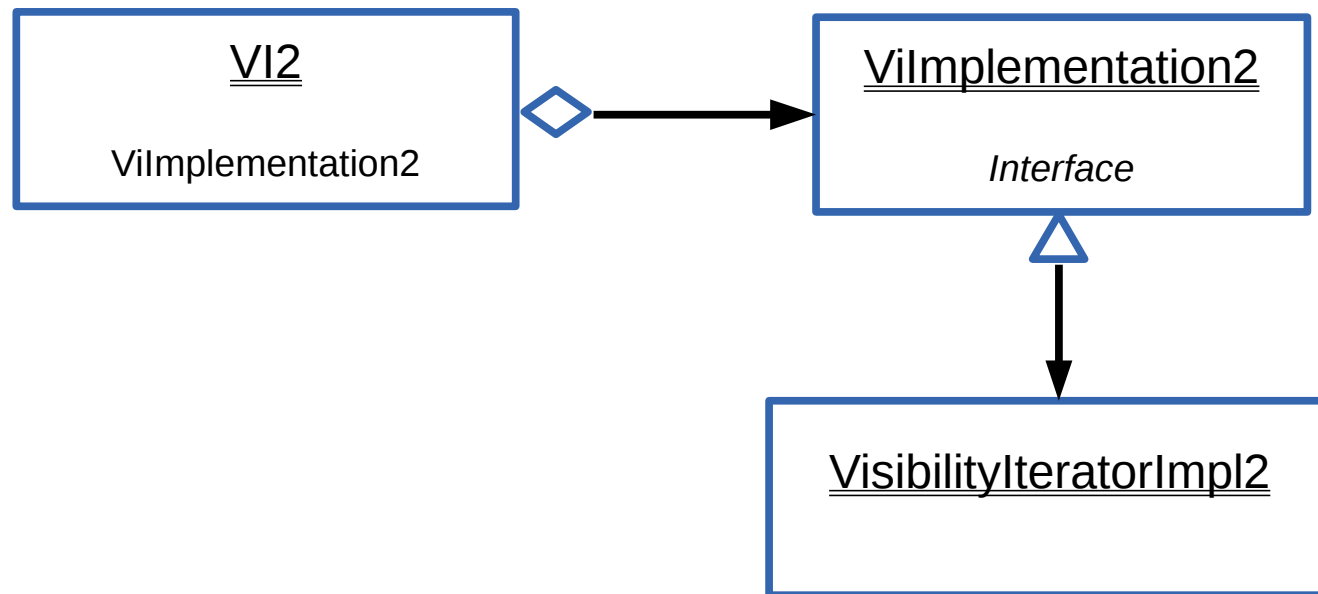
- Augment with common functionality currently implemented by VI users.
 - Selection
 - Vislter
- Provide abstraction to hide lower-level layers.
 - Tables, columns, storage managers, tiles, etc.

Semantics

- The VisibilityIterator sweeps through an MS on subchunk at a time.
- The VI has exactly one attached VisBuffer which contains the current subchunk of data.
- VB will always be consistent
 - Data in attached VB always makes sense relative to the underlying data.
 - Data in a detached VB will be self-consistent
- Actual MS can be computed on the fly
 - Time & frequency averaging, etc.

Internal Structure

- Bridge Design Pattern (used in Table, etc.)



Development Plan

- Implement as parallel classes using “2” suffix
 - VisibilityIterator2, VisBuffer2
- Begin integration (current state)
- Revamp API as *needed*
- Increase abstraction provided
- Deprecate original VI
- Remove original VI and rename VI2 to VI.