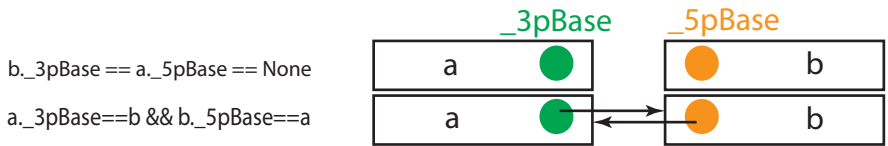


The VirtualHelix Class



Follow along in [cadnano2/model/virtualhelix_tutorial.py](#) or run caDNAno using ``python main.py -i`` to get a debug console in caDNAno proper.

`from model.enum import StrandType`

`vh = virtualHelix(numBases=8, idnum=0)`



Bases are associated with the lesser of the two possible indices, and can be fetched (which you should never do unless self is a VirtualHelix) like
`vh.strand(StrandType.Staple)[0]`

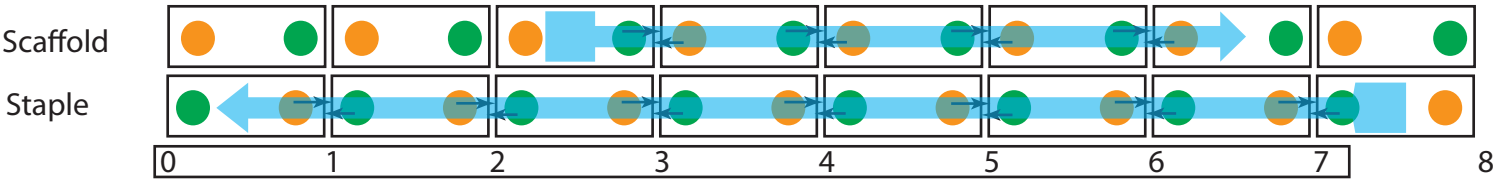
Note that the signly linked red sometimes runs against the indexes in the `vh.strand(strandType)` array.

Modification

`vh.connectStrand(StrandType.Scaffold, 2, 6)`

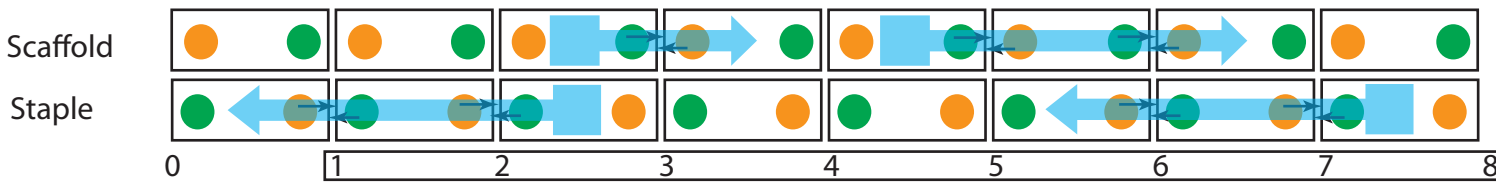
`vh.connectStrand(StrandType.Staple, 0, 7)`

Inside caDNAno you should not have to do anything in addition to calling these methods to get changes to propagate to the graphical representations you can see and edit.



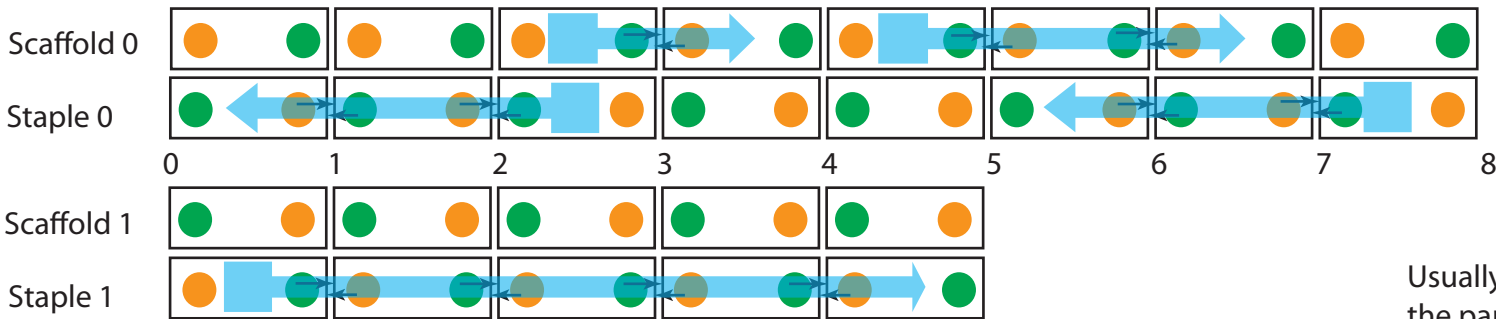
`vh.clearStrand(StrandType.Scaffold, 4, 4)`

`vh.clearStrand(StrandType.Staple, 3, 5)`

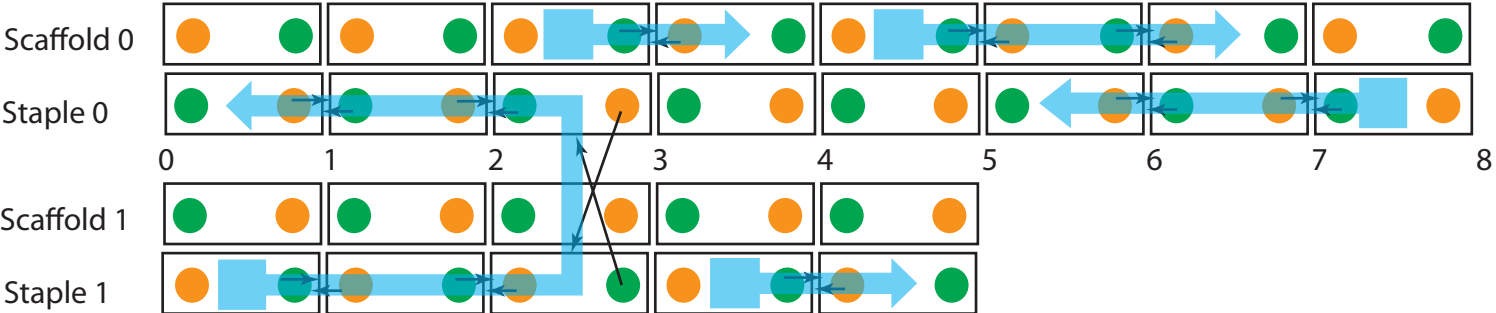


`vh1 = VirtualHelix(numBases=5, idnum=1)`

`vh1.connectStrand(StrandType.Staple, 0, 4)`



`vh.connect3to5(StrandType.Staple, 2, vh1, 2)`



Usually `vh.undoStack()` gets the parent document's undo stack, but in `test.py` there is no document so each `vh` will have a different undo stack.

`vh.undoStack().undo()`
`vh.undoStack().undo()`

`vh.undoStack().undo()`
`vh.undoStack().undo()`

`vh1.undoStack().undo()`

`vh.undoStack().undo()`