Queues

Queues are declared as an ``abstract'' class. They are currently implemented in any of three ways.

VQueue	implement fixed sized Queues via arrays.
XPQueue	implement dynamically-sized Queues via XPlexes.
SLQueue	implement dynamically-size Queues via linked lists.

All possess the same capabilities; they differ only in constructors. **VQueue** constructors require a fixed maximum capacity argument. **XPQueue** constructors optionally take a chunk size argument. **SLQueue** constructors take no argument.

Assume the declaration of a base element **x**.

Queue q; or **Queue q(int capacity);**	declares a queue.
q.empty()	returns true if queue q is empty.
q.full()	returns true if queue q is full. XPQueues and SLQueues are never full.
q.length()	returns the current number of elements in the queue.
q.enq(x)	enqueues x on queue q.
x = q.deq()	dequeues and returns the front of queue
q.front()	returns a reference to the front of queue.
q.del_front()	dequeues, but does not return the front of queue

q.clear()	removes all elements from the queue.