

Swapping (Ch 20)

Discussion Questions

- How does the virtualization of memory allow an OS to provide the illusion that a process has more memory than is physically available?
- Where is the swap space located?
- How are page faults and present bits related?
- What are the steps that occur in servicing a page fault?
 - What if memory is full?
 - Is this likely?
- What are the steps involved in accessing a memory location if the desired page is paged out?
- What are high-water and low-water marks?
 - Why do we want them?

- If the page has not been changed since it was last written to disk, do we need to write it again?
 - Do we really need to evict a page to get to the high-water mark or can we simply make sure it is “clean”?
- What is the advantage of doing work in the background?
- What should happen if we run out of swap space?
 - Is this possible? How?
 - Could we prevent it?
- What are memory overlays?
 - How have things improved?