API

- + Number : enum + Error : enum
- + Operation : enum
- m_apis : Vector<Handler *>
- + API()
- + invoke(Number, ulong, ulong, ulong, ulong, ulong) : Error

Process

- + Result : enum
- +State: enum
- # m_id : ProcessID
- # m_parent : ProcessID
- # m state: State
- # m_waited : ProcessID
- # m_privileged : bool
- # m_entry : Address
- # m_map : MemoryMap
- # m_memoryContext : MemoryContext *
- # m_pageDirectory : Address
- # m_userStack : Address
- # m kernelStack : Address
- # m_kernelStackBase : Address
- # m_wakeups : Size
- # m_sleepTimer : Timer::Info
- # m_shares : ProcessShares
- # m_kernelChannel : MemoryChannel *
- + Process(ProcessID, Address, bool, const MemoryMap &)
- + ~Process() virtual
- + getID(): ProcessID
- + getParent(): ProcessID
- + getWait() : ProcessID
- + getSleepTimer() : Timer::Info *
- + getShares(): ProcessShares &
- + getState() : State
- + getPageDirectory() : Address
- + getUserStack() : Address
- + getKernelStack(): Address
- + getMemoryContext() : MemoryContext *
- + raiseEvent(struct ProcessEvent *) : Result
- + isPrivileged(): bool
- + setState(State) : void
- + setParent(ProcessID): void
- + setWait(ProcessID) : void
- + setSleepTimer(const Timer::Info *) : void
- + setPageDirectory(Address): void
- + setUserStack(Address) : void
- + setKernelStack(Address): void + operator == (Process *) : bool
- + wakeup() : Result
- + sleep(Timer::Info *) : Result
- + initialize() : Result
- + execute(Process *): void virtual

ProcessManager

- m_procs : Vector < Process *> *
- m_scheduler : Scheduler *
- m_current : Process * - m_previous : Process *
- m_idle : Process *
- + ProcessManager(Scheduler *)
- + ~ProcessManager(): virtual
- + getScheduler() : Scheduler
- + create(Address, const MemoryMap &): Process *
- + get(): Process *
- + remove(Process *, uint) : void
- + schedule(Process *): void + setIdle(Process *): void
- + current() : Process *
- + previous() : Process * + getProcessTable() : Vector < Process *> *

Kernel

- + Result : enum
- # m_alloc : SplitAllocator *
- # m_procs : ProcessManager *
- # m_api : API *
- # m_coreInfo : CoreInfo *
- # m_interrupts : Vector < List < InterruptHook *> *>
- # m_intControl : IntController *
- # m timer: Timer *
- + Kernel(CoreInfo *)
- + heap(Address, Size): Error
- + getAllocator() : SplitAllocator *
- + getProcessManager() : ProcessManager *
- + getAPI() : API *
- + getMemoryContext() : MemoryContext *
- + getCoreInfo() : CoreInfo *
- + getTimer(): Timer *
- + run(): int
- + enableIRQ(u32, bool) : void
- + hookIntVector(u32, InterruptHandler, ulong): virtual void
- + executeIntVector(u32, CPUState *): virtual void
- + loadBootImage(): virtual Result
- loadBootProcess(BootImage *, Address, Size): virtual Result



ARMKernel

- m_bcmTimer : BroadcomTimer
- + ARMKernel(ARMInterrupt *, CoreInfo *)
- interrupt(CPUState) : static void
- trap(CPUState) : static void
- undefinedInstruction(CPUState) : static void
- prefetchAbort(CPUState) : static void - dataAbort(CPUState) : static void
- reserved(CPUState) : static void

ProcessShares

- + MemoryShare : Struct
- + Result : enum
- m_pid : ProcessID
- m_memory : MemoryContext *
- m_kernelChanne : MemoryChannel
- m_shares : MemoryChannel * - m_shares : Index < Memory Share >
- + ProcessShares(ProcessID)
- + ~ProcessShares(): virtual
- + getProcessID(): ProcessID const
- + getMemoryContext() : MemoryContext *
- + setMemoryContext(MemoryContext *) : Result
- + createShare(ProcessShares &, MemoryShare *): Result
- + createShare(ProcessID, Size, Size, Address, Size): Result
- + readShare(MemoryShare *) : Result
- + removeShares(ProcessID) : Result
- releaseShare(MemoryShare *, Size) : Result