PickerBarcodeReader

- listSku: ArrayList<Integer>
- isReady: boolean
- currentPR: PickingRequest
- name: String

+ PickerBarcodeReader ()
+ getName(): String
+ getIsReady() : boolean
+ getListSku(): ArrayList<Integer>
+ scanSku(sku): void
+ setReady(): void
+ getCurrentPR(): PickingRequest
+ assignPickingRequest (pr: PickingRequest): void

<<Interface>>
Comparable<T>

+ compareTo (object: T) : int

WarehouseSystem

- queuePR: ConcurrentLinkedQueue <PickingRequest>
- retrievedPR : PriorityQueue <PickingRequest>
- historyPR : ArrayList<PickingRequest>
- lstMarshaling: ConcurrentSkipListMap<Integer, ArrayList>
- lstPBR: Map<String, PickerBarcodeReader>
- lstSBR: Map<String, SequencerBarcodeReader>
- lstLBR: Map<String, LoaderBarcodeReader>
- orders: ArrayList<String>
- skuToLocation: Map<Integer, String>
- inventory: InventoryManager
- truck: TruckManager
- lstReadyPicker: ConcurrentLinedQueue <PickerBarcodeReader>

+ WarehouseSystem (file1: String, file2: String)
+ processOrder(order: String): void
+ hasPicker(name: String): boolean
+ addPicker(name: String): void
+ addPickingRequest (pr: PickingRequest): void
+ setPickerReady(name: String): void
+ pickerPicks(name: String, sku: int): void
+ sentToMarshaling (name: String): void
+ hasSequencer (name: String): boolean
+ addSequencer(name: String): void
+ processSequencing (name: String): void
+ hasLoader(name: String): boolean
+ addLoader(name: String): void
+ loaderLoads(name: String): void
+ replenish(location: String): void
- readFile (file: String) : void
+ produceFinalInventoryFile (fileName: String) : void
+ writeOrdersToFile (fileName: String):void

PickingRequest

- currentNumber: int
- id: int
- isProcessing: boolean
- orders: String[ ]
- skus: ArraList<Integer>
- transTable: ArrayList<String[ ]>

+ PickingRequest (orders: String[ ])
+ getId() : int
+ getProcessing() : boolean
+ setProcessing () : void
+ setNew() : void
+ translateNewTable (fileName:String) : void
- transSku (orders: String[ ]) : ArrayList <Integer>
+ getSkus() : ArrayList<Integer>
+ compareTo (pr2: PickingRequest) : int
+ getOrders(): String[ ]

SequencerBarcodeReader

- currPickReq : PickingRequest
- listSku: ArrayList <Integer>
- pendPickReg : PriorityQueue <PickingRequest>
- currId: int

+ SequencerBarcodeReader ()
+ getPickingRequest () : PickingRequest
+ verifySku(): boolean
+ getListSku () : ArrayList<Integer>
+ assignListSku(skus: ArrayList<Integer>): void
+ assignPickingRequest (pickReq:PickingRequest): void
+ sentToLoader (pickReq: PickingReg): void

LoaderBarcodeReader

- loadQueue : ConcurrentLinkedQueue<PickingRequest>

+ LoaderBarcodeReader ()
+ getLoadQueue () : ConcurrentLinkedQueue<PickingRequest>
+ load(): PickingRequest
+ addLoadRequest (pr: PickingRequest): void

TruckManager

- orderNum : int
- isFull: boolean

+ TruckManager ()
+ getOrderNum (): int
+ loading (): void

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inventoryManager

- warehouseStock: ConcurrentSkipListMap <String, Integer>
+ MAX_STOCK: int
+ MIN_STOCK: int
+ REP_AMOUNT: int

+ InventoryManger (iniFile: String)
- readIniFile (iniFile: String): void
+ getStock (location: String): int
+ updateStock (location: String): void
+ replenish (location: String): void
+ writeInventoryFile () : void

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