詳情請看submitMaterialOnlineInfo方法

具體每一步的業務流程去看拋錯！！！！！！

//备料载具(移入载具)  
String prepareVehicleCode = materialOnlineSubmitVO.getPrepareVehicleCode();  
//分料载具(移出载具)  
String distributeVehicleCode=materialOnlineSubmitVO.getDistributeVehicleCode();  
//工厂组织  
String orgCode = materialOnlineSubmitVO.getOrgCode();  
//条码  
String pkgId = materialOnlineSubmitVO.getPkgId();  
//储位  
String binCode = materialOnlineSubmitVO.getBinCode();  
//工单号  
String workOrderNo = materialOnlineSubmitVO.getWorkOrderNo();

1. 先檢查是否檢料了，也就是拿著這個值去檢料表裡面去找（也即是work-order-pick-log表）

//查询捡料记录

WmsWorkOrderPickLog wmsWorkOrderPickLogDb = wmsWorkOrderPickLogMapper.selectOne(Wrappers.<WmsWorkOrderPickLog>lambdaQuery()

.eq(WmsWorkOrderPickLog::getOrgCode, orgCode)

.eq(WmsWorkOrderPickLog::getPkgId, pkgId) .eq(WmsWorkOrderPickLog::getPrepareWoFlag, "0")

.orderByDesc(WmsWorkOrderPickLog::getId)

.last("limit 1"));

只需要工場組織ID（org\_id）, 物料ID(Pkg\_id), 並且已經備料(0/1)

這個是否備料和備料載具有關

詳情去看 方法裡的拋錯

//群组

String workOrderItem = wmsWorkOrderPickLogDb.getWorkOrderItem();

//料号

String partNo = wmsWorkOrderPickLogDb.getPartNo();

//可用量

BigDecimal currentQty = wmsWorkOrderPickLogDb.getCurrentQty();

1. 檢驗該料的有效期

//校验料号有效期

checkPartNoValidDate(partNo, wmsWorkOrderPickLogDb.getSupplierPartNo(), wmsWorkOrderPickLogDb.getMfgName(),

wmsWorkOrderPickLogDb.getOrgCode(), wmsWorkOrderPickLogDb.getPlantCode());

1. 檢驗燒錄信息（也即是pkg\_burn\_info表）

String productPartNo = wmsWorkOrderPickLogDb.getProductPartNo();

String burnValue = wmsWorkOrderPickLogDb.getBurnValue();

String pkgId = wmsWorkOrderPickLogDb.getPkgId();

這裡面分為Mes燒錄

如果燒錄值（傳過來的燒錄值），但是MES的burnValue為空那麼就是未配置

如果兩個值相等也即是burnValue和mesBurnValue

那麼即使燒錄值錯誤，不能上線的

//查询料号在MES是否有对应的烧录信息

List<BurnInfoNewDTO> burnInfoNewDTOList = wmsPkgBurnInfoService.getOnLineBurnedInfo(orgCode, productPartNo);

還有一種情況就是

//PKG不需要烧录但PKG烧录值不为空,提示PKG有烧录值，但工单不需要烧录，请先擦除

也就是burnValue有值但是MESBUrnValue查出來沒有記錄

1. 校验lcr和丝印(TopMarking)信息

//校验lcr,丝印信息

checkLcrAndTopMarking(orgCode, pkgId, wmsWorkOrderPickLogDb);

先判斷是否需要LCR在判斷TopMarking信息，有點繁瑣就不一一列舉啦，自己去看吧。

在判斷LCR時：

從檢料記錄表中獲取數量(pkg\_info)

//当前数量等于原始数量时,不需要LCR,LCR记录中如果不存在则新增一笔LCR成功完成记录

//当前数量不等于原始数量时,判断LCR结果

1. 校验msd必须为封装状态以及有效时长必须大于等于8小时

這個需要調用MES子系統

checkService.checkSealConditionAndRemainTime(orgCode, partNo, wmsWorkOrderPickLogDb.getSupplierPartNo(),

wmsWorkOrderPickLogDb.getMfgName(), wmsWorkOrderPickLogDb.getPkgId(),

wmsWorkOrderPickLogDb.getOriginalDateCode(), wmsWorkOrderPickLogDb.getLotCode(),

StatusCode.Y.getDictCode(), wmsWorkOrderPickLogDb.getPlantCode(),

8);

1. 首先判斷是不是MSD物料

檢查MSD要去物料表去找

首先要判斷是不是產品，只有非產品才可以進行MSD

去物料表中去找(basic\_material)

basic\_sys.basic\_material\_mfg（製造商料號表裡面）

去看msd\_level字段

若不等於0就是可以

2）如果是MSD物料那麼就要判斷是不是已經封裝

PkgInfoFeignDTO pkgInfoFeignDTO = getPkgInfoFeignDTO(StrUtil.EMPTY, StrUtil.EMPTY,

StrUtil.EMPTY, orgCode, pkgId, StrUtil.EMPTY, StrUtil.EMPTY);

if (ObjectUtil.isNull(pkgInfoFeignDTO)) {

throw new CloudmesException(WmsMouldResultCode.NOT\_FOUND\_PKG\_INFO\_IN\_MES.getCode(),

MessageUtils.get(WmsMouldResultCode.NOT\_FOUND\_PKG\_INFO\_IN\_MES.getLocalCode()));

}

//是否封装

boolean sealFlag = !"0".equals(pkgInfoFeignDTO.getMsdGrade()) && pkgInfoFeignDTO.isMsdSealFlag();

if (StatusCode.Y.getDictCode().equals(sealCondition)) {

if (!sealFlag) {

throw new CloudmesException(WmsMouldResultCode.MSD\_MATERIAL\_MUST\_NOT\_OPEN.getCode(),

MessageUtils.get(WmsMouldResultCode.MSD\_MATERIAL\_MUST\_NOT\_OPEN.getLocalCode()));

}

} else {

if (sealFlag) {

throw new CloudmesException(WmsMouldResultCode.MSD\_MATERIAL\_IS\_NOT\_OPEN.getCode(),

MessageUtils.get(WmsMouldResultCode.MSD\_MATERIAL\_IS\_NOT\_OPEN.getLocalCode()));

}

}

這裡需要調用MES系統，裡面會直接就有字段判斷

3）判斷剩餘時長是否大於8小時

boolean remainTimeFlag = checkMsdRemainTime(pkgInfoFeignDTO, hour);

1. 校验QHOLD

這個需要調用QMS子系統

主要QMS的調用

WMSHoldQueryVO holdQueryVO = new WMSHoldQueryVO();

holdQueryVO.setOrgCode(wmsWorkOrderPickLogDb.getOrgCode());

holdQueryVO.setMaterialNo(wmsWorkOrderPickLogDb.getPartNo());

holdQueryVO.setMfg(wmsWorkOrderPickLogDb.getMfgName());

holdQueryVO.setMfgMaterialNo(wmsWorkOrderPickLogDb.getSupplierPartNo());

holdQueryVO.setDateCode(wmsWorkOrderPickLogDb.getOriginalDateCode());

holdQueryVO.setLotCode(wmsWorkOrderPickLogDb.getLotCode());

holdQueryVO.setPkgId(wmsWorkOrderPickLogDb.getPkgId());

holdQueryVO.setQty(wmsWorkOrderPickLogDb.getCurrentQty());

PkgIdStatusDTO pkgIdStatusDTO = wmsPkgInfoService.pkgIdIsHold(holdQueryVO);

if (Boolean.TRUE.equals(pkgIdStatusDTO.getIsHold())) {

throw new CloudmesException(WmsMouldResultCode.Q\_HOLD\_LOCK\_NOT\_ALLOW\_ON\_LINE.getCode(),

MessageUtils.get(WmsMouldResultCode.Q\_HOLD\_LOCK\_NOT\_ALLOW\_ON\_LINE.getLocalCode()));

}

1. 查询库位信息

//查询库位信息

WmsLocationDTO wmsLocationDTO = wmsLocationMapper

.selectByVehicleCode(orgCode, wmsWorkOrderPickLogDb.getVehicleCode());

RecommendDTO recommendDTO = recommendBin(prepareVehicleCode, binCode, orgCode, partNo);

1. 首先先檢查當前載具碼是否正確
2. 然後根據載具去儲位表中找儲位（wms\_bin）
3. //查询载具,储位对应的已启用的储位信息,如果储位值不为空,则找到储位中大于等于该储位上是否有空储位

List<WmsBin> wmsBinDbList = wmsBinMapper.selectList(Wrappers.<WmsBin>lambdaQuery()

.eq(WmsBin::getVehicleCode, vehicleCode)

.eq(WmsBin::getOrgCode, orgCode)

.ge(StrUtil.isNotEmpty(binCode), WmsBin::getBinCode, binCode)

.eq(WmsBin::getIsEnable, Boolean.TRUE));

找可用的儲位方法

private List<WmsBin> getAvailableWmsBins(String vehicleCode, String orgCode, List<WmsBin> wmsBinDbList,

String partNo) {

List<WmsWorkOrderPrepareLog> workOrderPrepareLogList = wmsWorkOrderPrepareLogMapper

.selectList(Wrappers.<WmsWorkOrderPrepareLog>lambdaQuery()

.eq(WmsWorkOrderPrepareLog::getVehicleCode, vehicleCode)

.eq(WmsWorkOrderPrepareLog::getSfcUnshelfPkgFlag, "0")

.gt(WmsWorkOrderPrepareLog::getCurrentQty, BigDecimal.ZERO)

.eq(StrUtil.isNotEmpty(orgCode), WmsWorkOrderPrepareLog::getOrgCode, orgCode));

return wmsBinDbList.stream().filter(wmsBin -> {

//料号个数

Integer materialCount = wmsBin.getMaterialCount();

//pkgId个数

Integer pkgIdCount = wmsBin.getPkgIdCount();

List<WmsWorkOrderPrepareLog> workOrderPrepareLogs = workOrderPrepareLogList.stream()

.filter(wmsWorkOrderPrepareLog -> wmsBin.getBinCode().equals(wmsWorkOrderPrepareLog.getBinCode()))

.collect(Collectors.toList());

long pkgCount = workOrderPrepareLogs.stream().map(WmsWorkOrderPrepareLog::getPkgId).distinct().count();

//判断料号种类是否符合要求

List<String> partNoList = workOrderPrepareLogs.stream().map(WmsWorkOrderPrepareLog::getPartNo).distinct()

.collect(Collectors.toList());

int partNoCount = CollUtil.isNotEmpty(partNoList) ? !partNoList.contains(partNo) ?

partNoList.size() + 1 : partNoList.size() : partNoList.size();

if (pkgIdCount > (int) pkgCount && materialCount >= partNoCount) {

return Boolean.TRUE;

}

return Boolean.FALSE;

}).collect(Collectors.toList());

}

1. 新增下架条码履历
2. 修改捡料记录

在

1. 新增备料记录
2. 查询库位信息
3. 新增上线条码履历
4. 工单明细

最後回寫工單明細，finish

updateWorkDetail(wmsWorkOrderDetailDb, currentQty);  
MaterialOnlineSubmitDTO materialOnlineSubmitDTO = new MaterialOnlineSubmitDTO();  
materialOnlineSubmitDTO.setPrepareVehicleCode(prepareVehicleCode);  
materialOnlineSubmitDTO.setBinCode(recommendDTO.getBinCode());  
materialOnlineSubmitDTO.setWorkOrderToLocation(wmsWorkOrderPrepareLog.getWorkOrderToLocation());  
materialOnlineSubmitDTO.setPkgId(pkgId);  
return materialOnlineSubmitDTO;