**FA Repair**

**Use Case**

F

**修订历史**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 章节号 | 章节名称 | 变更原因 | 变更内容描述 | 变更日期 | 版本 |
| 业务规则 | 9. Save | UC BUG | MB和VGA换件增加更新Product\_Part  Update Product\_part set New mb sn#= New mb sn# where ProductID=ProductID# and PartSn=Old mb sn# | 2012-03-13 |  |
| 业务规则 | 3.Get Model,Test Station,Return Station | UC bug | 增加计算ReturnStn的范围限定：ProductRepair\_DefectInfo 表中ReturnStn为空的记录 | 2012/3/14 |  |
| ALL | ALL | 新需求 | MBCode升级，统一修改 | 2012-5-18 |  |
|  | | | | | |
| 1.2 | Editor | 客户要求修改 | 当Cause<>’WW’ or ‘CN’，Major Part 必须选择  补齐Location字段 | 2012-6-13 | 0.03a |
| 1.2/1.3 | Edit / Add | 新需求 | 解除旧板子Lot | 2012-7-6 | 0.03a |
| 1.2/1.3 | Edit / Add | 新需求 | MajorPart等栏位按Code正序排列 | 2012-7-14 | 0.03a |
| ALL | ALL | 新需求 | 回流机器返回上一站 | 2012-7-17 | 0.03a |
| ALL | ALL | 新需求 | 回流机器，不取57/66/6P | 2012-7-24 | 0.03a |
| 1.2/1.3 | 成退 | 新需求 | 成退时，Repair需记录LogID | 2012-7-25 | 0.03a |
| ALL | ALL | 新需求 | 通过Defect+Cause控制机器流向 | 2012-7-31 | 0.03a |
| 1.2/1.3 | Edit/Add | 新需求 | PartType选中’MB’时，新旧料SN要求必须输入 | 2012-11-5 | 0.05a |
| ALL | ALL | 新需求 | Defect+MajorPart控制机器流向取代通过Defect+Cause控制机器流向 | 2013-1-3 | 0.05a |
| ALL | ALL | 新需求 | 对于57站Key的不良在45站用户选择Cause为误判，则机器返回站强制为50 | 2013-5-10 | 0.05a |
| 1.2/1.3 | Edit/Add | 新需求  Maintis:IPC #0001851 | Clean Room：整机FA Reapir 需修改的部  複製舊料的資料至UnpackProductStatus & UnpackProduct，清空Product表的CartonSN | 2013-06-25 | 0.05a |
| 1.2 | Edit | 新需求  Mantis  #1949 | 如果用户选择lfet(Cause,2) = ‘CN’，[Remark]备注栏可供Uesr编辑 | 2013-08-15 | 0.05a |
| 1.2/1.3 | Edit/Add | 新需求  Maintis:ICC #0000267 | Clean Room：整机FA Reapir 需修改的部  依據廠別區分不同結合的CleanRoom LCM條件  Update 新舊料的ProductStatus，增加可以用CUSTSN更新 | 2014-01-28 | 0.05a |
| 1.2 | Edit | 新需求  Maintis:ICC #0000538 | CPU Control需求：依據系統配置檢查CPU Material狀態與BOM的SpecNo  並更新新舊料的Material狀態 | 2014-04-25 | 0.05a |
| 1.2 | Edit  業務規則 | 新需求 | 新增換料追蹤-打印小白條需求 | 2015-01-12 | 1.01a |
| 1.2 | Edit  業務規則 | 需求調整  #1310 | 不打印小白條  針對有CT的料件才儲存 | 2015-04-21 | 1.01a |
| 1.2 | Edit  業務規則 | 需求調整  #1310 | 因應IQS實際作業模式，新增允許更新狀態:23 | 2015-06-10 | 1.01a |

**目录**

[0 前言 5](#_Toc421710612)

[0.1 Introduction 5](#_Toc421710613)

[0.2 References 5](#_Toc421710614)

[1 Use Cases 5](#_Toc421710615)

[1.1 Query 5](#_Toc421710616)

[1.2 Edit 7](#_Toc421710617)

[1.3 Add 21](#_Toc421710618)

[1.4 Finish 23](#_Toc421710619)

[~~1.5~~ ~~Product回流条件判断~~ 25](#_Toc421710620)

[2 Appendix 26](#_Toc421710621)

# 前言

## Introduction

本文档用于定义[FA Repair] 部分的业务需求，作为规格设计与程序设计的依据；读者为iMES2012 项目的用户，设计人员，开发人员和质检人员。

## References

# Use Cases

## Query

* 功能及目标

进入FA Repair时查询并显示unit 当前维修记录

* 前置条件

N/A

* 后置条件

针对unit 当前的待维修记录进行维修

* 过程描述

|  |  |
| --- | --- |
| **UI** | **System** |
| 1. Select PDLine |  |
| 1. Input ProdId/CUSTSN |  |
|  | 1. Get Model,Test Station,Return Station   注：如未选择Pdline,提示”请选择PDline” |
|  | 1. 卡站   参见[CI-MES-SPEC-000-SFC.docx] |
|  | 1. Get Repair Log, then display |

* 业务规则

|  |  |
| --- | --- |
| **Function** | **Rule** |
| 3.Get Model,Test Station,Return Station | 1. 初次进入Repair 的时候，需要基于Test Log 生成Repair Record~~,并计算设置ProductRepair\_DefectInfo .ReturnStn~~  ~~计算Return Station ,根据DefectCode和PRE\_STN=PreStn#和CRT\_STN=’45’查到NXT\_STN~~  ~~其中PreStn#为当前ProductStatus（ProductID=ProductID#）中Station~~  ~~计算范围：ProductRepair\_DefectInfo 表中ReturnStn为空的记录~~  **~~2012-7-31~~**  ~~检索DefectCode\_Station(Defect=[Defect] and PRE\_STN=[PreStation] and CRT\_STN=[CurrentStation] and Cause=[Cause]) ，获取Defect\_Station.NextStation~~  ~~若Defect\_Station.NextStation为空或者Null，则继续检索DefectCode\_Station(Defect=[Defect] and PRE\_STN=[PreStation] and CRT\_STN=[CurrentStation] and Isnull(Cause,’’)=’’) 获取Defect\_Station.NextStation~~  ~~若Defect\_Station.NextStation为空或者Null，则报错：“请联系IE，维护Defect Station”~~  参考下列Tables:   * ProductTestLog/ProductTestLog\_DefectInfo * ProductRepair/ProductRepair\_DefectInfo(Mark缺省为0;) * DefectCode\_Station   其中ProductRepair .logID=ProductLog.ID  (ProductID=@PrdID and Status=0 Order By Cdt Desc)最近的一条log  2.根据Defect 修护记录计算得到，多个Defect 修护 时 如果找到多个Return Station,添加到ReturnStation下拉列表中，供客户选择  ~~Select ReturnStn from ProductRepair a, ProductRepair\_defectInfo b where a.ProductID=ProductID and a.Status=0~~  2012-7-31  select distinct c.Station + ' ' +c.Descr as Text, c.Station as Value from ProductRepair a  inner join ProductRepair\_DefectInfo b  on a.ID = b.ProductRepairID  left join Station c  on b.ReturnStn = c.Station  where a.ProductID = '@Product'  and a.Status = '0'  order by c.Station  若[Return Station]存在且只存在一条非空记录，则自动选择该记录 |
| 5. Get Repair Log by ProdId | Get Repair Log by ProdId  仅需获取Defect尚未全部维修完毕的记录（[ProductRepair].Status = 0 及其相关[ProductRepair\_DefectInfo]记录） |
| 5.1 Display Items of Repair Log | |  |  | | --- | --- | | Display Name | Definition | | PdLine | [ProductRepair].Line | | Test Stn | [ProductTestLog].Station + ‘ ‘ + [Station].Descr | | Defect | [ProductRepair\_DefectInfo].DefectCode + ' ' + GetData..[DefectCode].Descr  **Note**：  [DefectCode].Type = ‘PRD | | MarjorPart | [ProductRepair \_DefectInfo].’MarjorPart’+ ‘ ‘ + GetData..[DefectInfo].Description  **Note**：  [DefectInfo].Type = ‘MarjorPart’ | | Create Date | [ProductRepair\_DefectInfo].Cdt | | Edit Date | [ProductRepair\_DefectInfo].Udt | | Return Station | [ProductRepair\_DefectInfo].ReturnStn  新增字段 | |
|  |  |
|  |  |

## Edit

* 功能及目标

修改指定的unit 维修记录

* 前置条件

N/A

* 后置条件

N/A

* 过程描述

|  |  |
| --- | --- |
| **UI** | **System** |
| 1. Select One Repair Log |  |
| 1. 2Click [Edit] button |  |
|  | 1. Get [Defect]/[Cause]/[Major Part]/[Component]/[Obligation]/[Mark]~~/[Part Type]~~/[Mac]/[return Station], Then display |
|  | 1. Display Detail Repair Log |
| 1. Modify Items of Detail Repair Log |  |
| 1. Click [ok] Button |  |
|  | 1. ~~彈出視窗訊問：”是否要打印小白條?”~~   ~~若為’Yes’，需在執行Save與打印。~~ |
|  | ~~Check Input Pass~~   * ~~若Part Type=’Other Type’时，New Part SN和Faulty Part SN不允许输入； Part Type<>’Other Type’时New Part PN和Faulty Part PN不允许输入~~ * ~~若Part Type=’ MB’时，需要检查输入的sn对应的part type与所选择的type一致(对于MB与Product.PCBID匹配)；~~ * ~~若Part Type=’ KP/ME’时，需要检查输入的sn对应的part type对应的Group与所选择的Type Group一致(对于KP/ME先在Product\_Part找，若没找到，再按照规则从BOM中匹配到对应的part得到Part Type)~~ * ~~若Part Type=’Other Type’时，PN不做检查，只保存。~~   ~~注：在Product的一次修护中只能存在一条Type=MB的纪录~~ |
|  | 1. Save   异常情况：  若cause为空，提示” Please input Cause first !”  若等于WW，且Obligation为空时，提示” Cause is WW,so please Entry Obligation first !”  如果输入的Defect 已经存在于Defect List 中，需要提示用户：“该Defect已经存在!!“  【2012-6-13】  如果用户选择lfet(Cause,2) = ‘WW’或’CN’，则清空[Major Part], [Component], [Site], [Remark]；否则要求输入[Major Part]  若[Site]不为空，则检查是否由以下字符组成’ 01234567890ABCDEFGHIJKLMNOPQRSTUVWXYZ’，若不是则报错：“错误的Site 代码”  若[PartType]=’MB’时，[Fault Part Sno]和[New Part Sno]不能为空，否则报错：“请输入新旧板料号”  【2013-8-15】  如果用户选择lfet(Cause,2) = ‘CN’，[Remark]备注栏可以供Uesr编辑。 |
|  | 1. ~~若打印小白條為’Yes’：~~   若舊料、新料均有值時，  Save Fault Part Sno Infomation |
|  | 1. ~~若打印小白條為’Yes’：~~   ~~Print FaultPartLabel~~ |
|  | 1. Refresh Repair Log on the Main Page |

* 业务规则

|  |  |
| --- | --- |
| **Function** | **Rule** |
| 3. Get [Defect]/[Cause]/[Major Part]/[Component]/[Obligation]~~/[Mark]~~/[Part Type]/[Mac]/[return Station] | 参考下列Tables:   * GetData..[DefectCode] – Type = ‘PRD’ Order BY Defect * GetData..[DefectInfo]   Type = FACause|MajorPart|Component|Obligation~~|Mark~~  CustomerID=SysSetting.Customer  Order by Code  Repair Part Type or Group:  KP/ME  MB  ~~对于用户在Repair Add 的Defect 记录，允许用户在Edit 的时候修改Defect，否则需要禁止修改Defect~~  备注：  Mark: (dropdown list)  0：可以show给客户的维修纪录  1：不能show给客户的维修纪录 |
| 4. Items of Detail Log | Items of Detail Log:   |  |  | | --- | --- | | Display Name | Definition | |  |  | | Defect | [ProductRepair\_DefectInfo]. DefectCode | | Cause | [ProductRepair\_DefectInfo].Cause | | Major Part | [ProductRepair\_DefectInfo].MajorPart | | Component | [ProductRepair\_DefectInfo]. Component | | Site | [ProductRepair\_DefectInfo]. Site | | ~~Faulty Part No~~ | ~~[ProductRepair \_ DefectInfo].OldPart~~ | | ~~New Part No~~ | ~~[ProductRepair \_ DefectInfo].NewPart~~ | | Faulty Part Sno | [ProductRepair\_DefectInfo]. OldPartSno | | New Part Sno | [ProductRepair\_DefectInfo]. NewPartSno | | Mac Address | Product.MAC | | Mark | [ProductRepair\_DefectInfo]. Mark | | Obligation | [ProductRepair\_DefectInfo].Obligation | | Remark | [ProductRepair\_DefectInfo]. Remark | | Part Type | [ProductRepair\_DefectInfo]. PartType | | Return Station | [ProductRepair\_DefectInfo]. ReturnStn | |
| 4.1 Format of Detail Log Item | Format of Detail Log Item:   |  |  | | --- | --- | | Item | Format | | Defect | GetData..[DefectCode].ID + ‘ ’ + GetData..[DefectCode].Descr | | Cause | GetData..[DefectInfo].Code + ‘ ‘ + GetData..[DefectInfo].Description | | Major Part | GetData..[DefectInfo].Code + ‘ ‘ + GetData..[DefectInfo].Description | | Component | GetData..[DefectInfo].Code + ‘ ‘ + GetData..[DefectInfo].Description | | Obligation | GetData..[DefectInfo].Code + ‘ ‘ + GetData..[DefectInfo].Description | | Mark | GetData..[DefectInfo].Description | |
| 5. Rule of Detail Log Item | Rule of Detail Log Item:   |  |  | | --- | --- | | Item | Rule | | Faulty Part Sno | * MB Part在Product表存在， * 其它type做存在检查(存在于Product\_Part表)，   + 若Marjor Part = ‘CRLCM‘，則帶出Faulty Part Sno  1. 獲取廠別@Plant，参见[CI-MES12-SPEC-000-UC Common Rule.doc] 2.8 2. 若@Plant=’ICC’(重慶廠)，   Select PartSn From Product\_Part  where CheckItemType='LCM' and ProductID=@ProductID   1. 若@Plant=’IPC’(上海廠)，   Select PartSn From Product\_Part  where CheckItemType='CRLCM' and ProductID=@ProductID   * 若[Part Type]有選擇，則[Fault Part No]不可為空值。 * 若New Part Sno不为空，则Faulty Part Sno必须输入 * 若Marjor Part = ‘CRLCM‘，則New Part Sno不可為空。 * 若Marjor Part 非 ‘CRLCM‘，New Part Sno为空，只输入Faulty Part Sno时，认为只对part作维修，只需记录 | | New Part Sno | 与Faulty Part Sno匹配到VendorCode相同或BOM中和此物料为共用料的相同的VendorCode 作part match&check  ~~即展Bom，同一个BM下一阶Part，Descr描述相同的Part ,其PartInfo.InfoValue(PartInfo.InfoType=‘VendorCode’)和PartSN前五码相同~~  ~~(MB的物料按照MBCode Part&check~~  ~~其中MBCode 是 根据Model展1阶，得到第一阶是MB的part [BomNodeType=MB]的MBCode[PartInfo.InfoValue(InfoType='MB')]，并且第一阶的PartInfo不存在InfoTyp='VGA' InfoValue='SV'~~  ~~)~~  参照《IMES\_HP\_PartCheck.xlsx》进行match&Check.  其中的【2012-7-20切线修改】   * 整机   当PartType为MB时：满足checkItemType=’MB’的match&Check，或者满足checkItemType=’VGA’的match&Check  Docking  当PartType为MB时：满足checkItemType=’DockingMB’的match&Check   * 当PartType为KP/ME时：checkItemType=Product\_Part.CheckItemType(PartSn=Faulty Part Sno# )   若Marjor Part = ‘CRLCM‘，New Part Sno須符合《CI-MES12-SPEC-Common-UC Part Match and Check.doc》1.47 Rule of CheckItemType(CRLCM) 的Match rule(New Part Sno 當成CT做處理)。  ***2014-04-25 Add：***  若Marjor Part = ‘CPU‘，New Part Sno須符合《CI-MES12-SPEC-Common-UC Part Match and Check.doc》1.8 Rule of CheckItemType(CPU) 的Other Check/Other Save rule(非On Board CPU須check是否須檢查Material.Status及BOM的SpecNo)。  若进入Edit之前此栏位已有值存在，则不能修改为空  其中 | |
| 9. Save | 新增逻辑：判断维修机器为整机还是RCTO  根据Model（select Model from Product）去判断机器是否为整机或RCTO。  若Model为PC：RerurnStation则按整机维护的返回站点重流。  若Model为173：页面提示：请去RCTO修护页面Key出。  **参数定义：**  PreStation：Product前一站的状态，ProductStatus.Station  CurrentStation：当前站  NextStation：下一站  MajorPart：UI选择的MajorPart  Defect：UI选择的Defect   * **业务逻辑：**   检索DefectCode\_Station(Defect=[Defect] and PRE\_STN=[PreStation] and CRT\_STN=[CurrentStation] and Cause=[Cause]) ，获取Defect\_Station.NextStation  ~~若Defect\_Station.NextStation为空或者Null，则继续检索DefectCode\_Station(Defect=[Defect] and PRE\_STN=[PreStation] and CRT\_STN=[CurrentStation] and ISnull(Cause,’’)=’’) 获取Defect\_Station.NextStation~~  ~~若Defect\_Station.NextStation为空或者Null，则报错：“请联系IE，维护Defect Station”~~  若检索到DefectCode\_Station(Defect=[Defect] and PRE\_STN=[PreStation] and CRT\_STN=[CurrentStation] and Cause=[MajorPart])，则Defect\_Station.NextStation即为PRE\_STN=[PreStation]  若Defect\_Station. Cause栏位值为空或者Null，则按  Defect Station维护Defect流向走  A.Update [ProductRepair\_DefectInfo]  【2015-1-21】  獲取舊料的PartNo(from Product\_Part)為@OldPart  獲取新料的PartNo(from Part Match and Check)為@NewPart  ProductRepair\_DefectInfo.OldPart=@OldPart, ProductRepair\_DefectInfo.NewPart=@NewPart  【2012-6-13】  ProductRepair\_DefectInfo.Location= left(MajorPart+’ ’,3)+LEFT(Component+’ ’,2)+RTRIM(Site)  ReturnStn=[NextStation]  [2013-5-10]：对于57站key了不良，修护站用户选择了Cause为误判，机器返回站点处理逻辑  若ProductTestLog.Station=’57’且用户选择Left(Cause,2)=’CN’,  Cause取值：  ProductRepair\_DefectInfo.Cause  则机器返回站点强制为50  B.若换件,   * KP/ME:   若old part存在Product\_Part作update,否则不做处理;  用new part替换old part；Product\_Part.Station不做Update  (其中Product\_Part表中PartSn是界面输入的new Part Sno)    ***2014-04-25 Add：***   * ~~檢查是否須進行CPU Control~~   ~~請參閱《CI-MES12-SPEC-000-UC Common Rule.doc》2.43 【判斷CPU是否須套用CPU Control】~~   * ~~若須進行CPU Control，須進行以下更新：~~   1.)Update Material  a.舊料：  Update Material  set Status=’Dismantle’,  PreStatus =CPUCT current status  Udt - Current Time  Where MaterialCT=@old\_part  b.新料[由PartMatch&Check處理]  Update Material  set Status=’Assembly’,  PreStatus =CPUCT current status  Udt - Current Time  Where MaterialCT=@new\_part  2.)Insert MaterialLog  a.舊料：  Insert MaterialLog  MaterialCT -@old\_part，  Action -‘FA Repair’，  PreStatus - CPUCT current status，  Status -‘Dismantle’，  Stage -’FA’，  Editor -(from UI)，  Cdt – Current Time  b.新料：[由PartMatch&Check處理]  Insert MaterialLog  MaterialCT -@new\_part，  Action -‘FA Repair’，  PreStatus - CPUCT current status，  Status -‘Assembly’，  Stage -’FA’，  Editor -(from UI)，  Cdt – Current Time   * 若Marjor Part = ‘CRLCM‘，   1.) a. copy ProductStatus and Product 資料到  UnpackProductStatus and UnpackProduct  *Remark:*  UEditor －登入User(from session)  UPdt － Current Time  其他欄位 from Product or ProductStatus  b. update ProductStatus & insert ProductLog for  **舊料**  -- update ProductStatus  update ProductStatus  set Station='CR33',  Status=0,  Line= 線別(from UI),  Editor= 登入User(from session),  Udt = current date  where ProductID = @old\_part [for Site IPC] or where CUSTSN = @old\_part [for Site ICC]  -- insert ProductLog  insert ProductLog  ProductID –@old\_part,  Model – CTModel,  Station –'CR33',  Status – 0,  Line – 線別(from UI) ,  Editor – 登入User(from session) ,  Cdt – Current Time  c. 清空舊料的CartonSN  update Product  set CartonSN='',  Udt = current date  where ProductID = @old\_part  2.) insert ProductTestLog & ProductTestLog\_DefectInfo  for **舊料** [提供以下資料，料件會進入Clean  Room – FA Repair 進行修復處理]  -- insert ProductTestLog  ActionName –'FA return'  Type –'PRD'  Line – 線別(from UI) ,  Station –@old\_part所在Station,  ProductID –@old\_part,  Status – 0,  Editor – 登入User(from session) ,  Cdt – Current Time  -- insert ProductTestLog\_DefectInfo  ProductTestLogID – 上一ProductTestLog的ID  DefectCodeID –Defect(from UI),  Editor – 登入User(from session) ,  Cdt – Current Time  3.) update ProductStatus & insert ProductLog for 新料  -- update ProductStatus  update ProductStatus  set Station='CR32',  Status=1,  Line= 線別(from UI),  Editor= 登入User(from session),  Udt = current date  where ProductID = @new\_part [for Site IPC] or where CUSTSN = @new\_part [for Site ICC]  -- insert ProductLog  insert ProductLog  ProductID –@new\_part,  Model – CTModel,  Station –'CR32',  Status – 1,  Line – 線別(from UI) ,  Editor – 登入User(from session) ,  Cdt – Current Time   * .若为MB  1. Check PCBLog, 2. for new MB   Update PCA..PCBStatus.Station =32,Status=1   1. for old MB   Update PCA..PCBStatus.Station=33,Status=0  3)insert PCA..PCBLog for new/old MB  4）ProductInfo, Product  判断是否为VGA，以便更新不同的表，参考  《CI-MES12-SPEC-000-UC Common Rule.docx》2.15区分MB/VB/SB  其中@Model=PCB.PCBModel(PCB.PCBNo= New mb sn#)   * + ’MB’（非VGA）   Update Product(Product.PCBID=New mb sn#,并从PCB表中得到以下信息写入Product表： PCBModel, MAC, UUID, MBECR, CVSN   * + ’VGA’   Update ProductInfo(InfoValue=New mb sn#) where Infotype=’VGA’ and ProductID=ProductID#  5) update Product\_Part  Update Product\_part  set PartSn= New mb sn#  where ProductID=ProductID# and PartSn=Old mb sn#  此处理是成退，板子会进入PCA Repair进行修护处理，所以需要做以下处理：  将记录保存到PCBRepair(Line是FA Line,Station是PCA Station=33)和PCBRepair\_DefectInfo表(其中DefectCode是当前修护记录对应的DefectCode，IsManual=0)  [2012-7-25]:PCBRepair.LogID(PCBLog.ID from PCBLog where PCBNo=#OldMB order by Cdt desc)  将FA和PCA的Repair ID保存到ReturnRepair表    6）Update LotNo For Old MB  Top 1 @LotNo = PCBLot.LotNo where PCBNo = @OldMB and Status=’1’ order by Cdt desc  若@LotNo为空或者NULL，则不需要进行下面的操作   1. Update Lot.Qty=Qty-1 where LotNo =@LotNo 2. Update PCBLot.Status=0, Udt=GetDate() where Status=1 and PCBNo=@OldMB   Note：   1. Lot的更新，可参考《CI-MES12-SPEC-SA-UC PCA Test Station For Lot》 16 |
| 6.3 Save Fault Part Sno Infomation | 獲取Defect的ProductRepair\_DefectInfo.ProductRepairID為@RepairID  獲取Defect的ProductRepair\_DefectInfo.OldPartSno為@OldPartSno  獲取Defect的ProductRepair\_DefectInfo.OldPart為@OldPart  獲取Defect的ProductRepair\_DefectInfo.Defect為@DefectCode  獲取@DefectCode的描述(DefectCode.Descr)為@DefectDescr  獲取此Defect的ProductID為@ProductID  獲取PartType選項值為@CheckItemType   1. 若@RepairDefectInfoID為空值，表示為新增修復項目但尚未儲存，則報錯：”請先編輯儲存修復資料，再進行打印!” 2. 查詢此@OldPart的料號資訊   以@OldPart至Part、PartInfo表查找紀錄。  ***獲取PartType、BomNodeType:***  select PartType, BomNodeType  from Part where PartNo=@OldPart  ***獲取IECPn:***  select InfoValue as IECPn  from PartInfo  where PartNo = @OldPart and InfoType='RDESC'   1. 新增/更新DefectComponent 2. ~~若@OldPartSno與@OldPart 相同(表示沒有唯一的PartSn)，~~   ~~以@OldPartSno、@RepadirID至DefectComponent表查找，~~  ~~若查無資料，則新增。~~  ~~若有資料，獲取DefectComponent.ID為@ID：~~   * ~~若Status 為’00’(修復待覆判)、’10’(覆判良品)，則更新。~~   ~~若Status為其他狀態，則報錯：”此機器：@ProductID換下的舊料：@OldPartSno 已進入退料覆判流程，不可打印!”，並終止後續程序。~~  ***~~判斷是否存在DefectComponent表的參考方法：~~***  ~~if not exists (~~  ~~select \*~~  ~~from DefectComponent~~  ~~where PartSn = @OldPartSno and~~  ~~RepairID = @RepairID )~~  若@OldPartSno與@OldPart 不同(表示有唯一的PartSn)：  才進行以下退料追蹤程序  以@OldPartSno至DefectComponent表查找，  若查無資料，則新增。  若有資料，獲取DefectComponent.ID為@ID：   * 若Status 為’00’(修復待覆判)、’10’(覆判良品)、’23’(IQC檢驗完成)，則更新。 * 若Status為其他狀態，則報錯：”此機器：@ProductID換下的舊料：@OldPartSno 已進入退料覆判流程，不可打印!”，並終止後續程序。   ***判斷是否存在DefectComponent表的參考方法：***  if not exists (  select \*  from DefectComponent  where PartSn = @OldPartSno)  Insert/Update DefectComponent:  Update：  若有獲取@ID，則以@ID更新其他欄位   * RepairID = @RepairID * BatchID=’’ * Customer = SysSetting.Name=’Customer’的值 * Model = Product.Model * Family = Model.Family * DefectCode = @DefectCode * DefectDescr = @DefectDescr * ReturnLine = ‘’ * PartSn = @OldPartSno * PartNo = @OldPart * PartType = Part.PartType * BomNodeType = Part. BomNodeType * IECPn = PartInfo.IECPn * CustomerPn = ‘’ * Vendor = ‘’ * CheckItemType = ‘’ * Comment = ‘’ * Status = ‘00’ (修復待覆判) * Editor = Currenct User * Cdt = Currenct Datetime * Udt = Currenct Datetime  1. 新增DefectComponentLog   若有異動DefectComponent表，需一併新增DefectComponentLog  Insert DefectComponentLog   * ActionName = ‘FaultyPartRepair’ * ComponentID = 本次新增/更新的DefectComponent.ID * RepairID = @RepairID * PartSn = @OldPartSno * Customer = SysSetting.Name=’Customer’的值 * Model = Product.Model * Family = Model.Family * DefectCode = @DefectCode * DefectDescr = @DefectDescr * ReturnLine = ‘’ * Remark = ‘’ * BatchID = ‘’ * Comment = ‘’ * Status = ‘00’ (修復待覆判) * Editor = Currenct User * Cdt = Currenct Datetime |
| ~~6.4 Print FaultPartLabel~~ | ~~1.根據[Maintain]子系統的LabelSetting配置，篩選需列印的Label。~~  ~~[註]Activity：FilterLabelTypeRule~~  ~~2.各Label Template的設定規則請參閱~~  ~~\TSBIMES\Project\3.Code\Label\CQ TSB iMES Label.xlsx~~  ~~3.Save：~~  ~~Insert PrintLog~~   * ~~Name = @LabelType~~ * ~~BegNo = @ProductID~~ * ~~EndNo = @PartSn~~ * ~~Descr = Line:@Line PrintMode:@PrintMode SPName:@SPName Pieces:@Pieces~~ * ~~Editor = Current User~~ * ~~Cdt = Current Datetime~~ * ~~LabelTemplate = @TemplateName~~ * ~~Station = Current Station~~   ~~4.執行Print~~  ~~- 傳入參數 [DCID]：@DefectComponent.ID~~ |

## Add

* 功能及目标

增加unit 维修记录

* 前置条件

N/A

* 后置条件

N/A

* 过程描述

|  |  |
| --- | --- |
| **UI** | **System** |
| 1. Click [Add] Button |  |
|  | 1. Display [Add] Page |
|  | 1. Get [Defect]/[Cause]/[Major Part]/[Component]/[Obligation], Then display |
| 1. Input Items of Detail Repair Log |  |
|  | 1. 当选择Defect时 计算return Station |
| 1. Click [OK] Button |  |
|  | 1. Check Input Pass |
|  | 1. Save   如果输入的Defect 已经存在于Defect List 中，需要提示用户：“该Defect已经存在!!“  Check 同 Edit |
|  | 1. Ask user :”Add another defect?” |
| 1. Choose ‘N’   如果用户选择’Y’，则清空页面后，go to step 4 |  |
|  | 1. Close [Add] Page |
|  | 1. Refresh Repair Log on the Main Page |
|  |  |

* 业务规则

|  |  |
| --- | --- |
| **Function** | **Rule** |
| 当选择Defect时 计算return Station | |  |  | | --- | --- | | ~~Return Station~~ | ~~[ProductRepair\_DefectInfo]. ReturnStn~~ |   ~~注：~~  ~~Return Station ,根据DefectCode和PRE\_STN=PreStn#和CRT\_STN=’45’查到NXT\_STN~~  ~~其中PreStn#为当前ProductStatus（ProductID=ProductID#）中Station~~  ~~建立新表DefectCode\_Station~~  ~~参考旧Fis 数据~~  ~~select top 1000 \*,[USER].dbo.GetStr(Descr,'') from LocalMaintain where Tp='RFDef'~~  参考Editor |
| 8. Save | A.Insert [ProductRepair\_DefectInfo]  【2012-6-13】  ProductRepair\_DefectInfo.Location= left(MajorPart+’ ’,3)+LEFT(Component+’ ’,2)+RTRIM(Site)  B.若有换件，操作参考edit |
|  |  |

## Finish

* 功能及目标

已经完成对unit 的维修

* 前置条件

N/A

* 后置条件

N/A

* 过程描述

|  |  |
| --- | --- |
| **UI** | **System** |
| 1. Click [Finish] Button |  |
|  | 1. Save   异常情况：   1. 如果存在没有维修完毕的Defect 记录，则报告错误：“必须维修完毕才能保存！！“ 2. ~~若机器为回流机器，则不需要选择ReturnStation~~ 3. 若[Return Station]为空，则报错：“请选择Return Station” |
|  | 1. ~~Return Station~~ |

* 业务规则

|  |  |
| --- | --- |
| **Function** | **Rule** |
|  |  |
| 1. Save | 1. 如果存在ForceNWC Where [ProductID]= ProductID#  则 Update [ForceNWC],  Station为returnstation  Update [ForceNWC]  [ForceNWC]= ReturnWC#  [PreStation]= '45'  Where [ProductID]= ProductID#  如果不存在则insert [ForceNWC]  2. Insert [ProductLog]，记录repair过站log  WC=45  4. Update [ProductRepair]，Status = 1,LineID=pdline,Station=维修站站号  WC=45  5.Update [ProductStatus]，Status = 1,Station=45 where ProductID=ProductID# |
| 1a. 没有维修完毕的Defect | 存在[ProductRepair\_DefectInfo].Cause=’’ |
| ~~3. Return Station~~ | * ~~前提条件：~~   ~~Product为回流机器~~  **~~Note：~~**  ~~回流机器判断，请参考 Product回流条件判断~~   * ~~参数定义：~~   ~~@NextStation：下一站~~  ~~@CurrentStation：当前站~~   * ~~获取上一站@NextStation~~   ~~select top 1 Station from ProductLog where ProductID = @ProductID and Station <>'76' and Station <>'7P' and Station<>’45’ and Station<>’57’ and Station<>’66’ and Station<>’6P’ order by Cdt desc~~   * ~~跳站~~   ~~若ForceNWC存在（ForceNWC.ProductID=@ProductID）则Update ForceNWC 否则Insert ForceNWC~~  ~~PreStation=@CurrentStation~~  ~~ForceNWC=@NextStation~~   * ~~Message~~   ~~提示：“CustSN：XXX下一站去”+ Station.Station +’ ’+Station.Descr~~ |

## ~~Product回流条件判断~~

~~declare @RepairID int, @PrdID char(9), @Station~~

~~select @RepairID = ID from ProductRepair nolock where ProductID = @PrdID order by Udt desc~~

~~Select @Station=Station from ProductStatus where ProductID=@PrdID~~

~~select distinct Cause from ProductRepair\_DefectInfo where ProductRepairID = @RepairID~~

~~若Cause 只有1条件记录，前2码为’CN’或WW’，@Station<>’7P’，则判定该Product为回流机器~~

# Appendix

1. 通过Defect+MajorPart控制机器流向( 取代通过Defect+cause控制机器流向)

* **参数定义：**

PreStation：Product前一站的状态，ProductStatus.Station

CurrentStation：当前站

NextStation：下一站

MajorPart：UI选择的MajorPart

Defect：UI选择的Defect

新增逻辑：判断维修机器为整机还是RCTO

根据Model（select Model from Product）去判断机器是否为整机或RCTO。

若Model为PC：RerurnStation则按整机维护的返回站点重流。

若Model为173：页面提示：请去RCTO修护页面Key出。

**参数定义：**

PreStation：Product前一站的状态，ProductStatus.Station

CurrentStation：当前站

NextStation：下一站

MajorPart：UI选择的MajorPart

Defect：UI选择的Defect

* **业务逻辑：**

检索DefectCode\_Station(Defect=[Defect] and PRE\_STN=[PreStation] and CRT\_STN=[CurrentStation] and Cause=[Cause]) ，获取Defect\_Station.NextStation

~~若Defect\_Station.NextStation为空或者Null，则继续检索DefectCode\_Station(Defect=[Defect] and PRE\_STN=[PreStation] and CRT\_STN=[CurrentStation] and ISnull(Cause,’’)=’’) 获取Defect\_Station.NextStation~~

~~若Defect\_Station.NextStation为空或者Null，则报错：“请联系IE，维护Defect Station”~~

若检索到DefectCode\_Station(Defect=[Defect] and PRE\_STN=[PreStation] and CRT\_STN=[CurrentStation] and Cause=[MajorPart])，则Defect\_Station.NextStation即为PRE\_STN=[PreStation]

若Defect\_Station. Cause栏位值为空或者Null，则按

Defect Station维护Defect流向走

黄色字体为新增或修改后的逻辑