

BOM & ENG Table Schema



前進國際顧問團隊

2019/06/10 v1.1

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Contents

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BOM Base Tables

Table Name	Alias	Description
BOM_BILL_OF_MATERIALS	bbom	BOM 表頭：母階料號明細
BOM_STRUCTURES_B	bsb	(bsb 是 base table · bbom 是 View；但比較常使用 bbom)
BOM_INVENTORY_COMPONENTS	bic	BOM 表身：子階料號明細
BOM_COMPONENTS_B	bcb	(bcb 是 base table · bic 是 View；但比較常使用 bic)
BOM_SUBSTITUTE_COMPONENTS	bsc	BOM 表身：子階料號替代料明細
BOM_REFERENCE_DESIGNATORS	brd	BOM 表身：子階料號插件位置明細
MTL_ITEM_REVISIONS_B	birb	BOM 版本表 (即料號版本表)
MTL_ITEM_REVISIONS_TL	birt	BOM 版本多語系說明表

BOM_BILL_OF_MATERIALS

BOM_STRUCTURES_B

BOM 表頭：母階料號明細

(bsb 是 base table，bbom 是 View；但比較常使用 bbom)

1. 定義 BOM 表頭的相關訊息，包含母階料號、主/替代名稱、共用 BOM ... 等等；

Key Columns	Description	必要
BILL_SEQUENCE_ID	BOM 的 ID (從 BOM_INVENTORY_COMPONENTS_S 取值)	Y
ORGANIZATION_ID	組織 ID	Y
ASSEMBLY_ITEM_ID	母階料號 ID	Y
ASSEMBLY_TYPE	M-BOM 或 E-BOM (1: Manufacturing, 2: Engineering)	Y
ALTERNATE_BOM_DESIGNATOR	主/替代名稱 (NULL 為主 BOM，有值時為替代 BOM)	
COMMON_ORGANIZATION_ID	如果是共用 BOM，此欄為來源 BOM 的組織 ID	
COMMON_ASSEMBLY_ITEM_ID	如果是共用 BOM，此欄為來源 BOM 的母階料號 ID	
COMMON_BILL_SEQUENCE_ID	如果是共用 BOM，此欄為來源 BOM 的 ID；如果不是，則與 BOM ID 相同	Y
SOURCE_BILL_SEQUENCE_ID	如果是複製 BOM，此欄為來源 BOM 的 ID；如果不是，則與 BOM ID 相同	Y
IMPLEMENTATION_DATE	BOM 實施日期 (E-BOM 轉 M-BOM，研發轉量產)	
SPECIFIC_ASSEMBLY_COMMENT	BOM Detail 裡面的註解文字	
PK1_VALUE	同 ASSEMBLY_ITEM_ID (母階料號 ID)	Y
PK2_VALUE	同 ORGANIZATION_ID (組織 ID)	Y

BOM_BILL_OF_MATERIALS

BOM_STRUCTURES_B

Path: (N) BOM > Bills > Bills

Navigator - Bills of Material

Functions Documents

Bills:Bills

Define Bills of Material

- Bills
 - Bills
 - Bills (Lucas Test)
 - Indented Bills
 - Comparison
 - Item WhereUsed
 - Mass Changes
 - Import Bills and Routings
 - Documents
 - Create Common Bills
- + Routings
- ATO
- Delete Groups
- + Projects
- + Reports
- + Setup
- + Other

Bills of Material (M1)

Item AS54888 Sentinel Standard Desktop UOM Ea

Alternate

Revision B Date 07-JUN-2019 23:02:29

Display Future and Current ☒ Implemented Only

Main Date Effectivity Unit Effectivity ECO Component Details Material Control Order Management Purchasing Shipping

Item Seq

		Operation Seq	Component	Item Description	Revision	UOM	Basis	
310	1		SB86662	Desktop Case	A	Ea	Item	[]
10	50		SB32982	Manual Set	A	Ea	Item	[]
20	60		CM15138	Monitor - 17"	A	Ea	Item	[]
30	60		CM18759	Keyboard - 101 Key	A	Ea	Item	[]
40	60		CM28287	Optiball Wireless Mouse	A	Ea	Item	[]

Substitutes Designators Operations Bill Details Revision

BOM_BILL_OF_MATERIALS

BOM_STRUCTURES_B

Path: (N) BOM > Bills > Bills > (Button) Bill Details

The screenshot shows a software interface for managing Bills of Materials. The main window is titled "Bills of Material (M1)" and displays details for item AS54888, "Sentinel Standard Desktop", with UOM "Ea". The revision is "B" and the date is "07-JUN-2019 23:02:29". A sub-window titled "Bill Detail (M1) - AS54888" is open, showing a table of components and a "Bill Details" tab. The "Bill Details" tab is highlighted with a red box. The table lists components with their Item Seq, Operation Seq, and Component names.

Item Seq	Operation Seq	Component
310	1	SB86662
10	50	SB32982
20	60	CM15138
30	60	CM18759
40	60	CM28287

The "Bill Details" tab contains the following fields:

- Description
- EAM Item Type
- Item Type: Finished good
- Base Model
- Common Bill
- Organization
- Item
- ☐ Enabled for Attributes Update

At the bottom of the main window, there are buttons for "Substitutes", "Designators", "Operations", "Bill Details" (highlighted with a red box), and "Revision".

BOM_INVENTORY_COMPONENTS

BOM_COMPONENTS_B

BOM 表身：子階料號明細

(bcb 是 base table，bic 是 View；但比較常使用 bic)

1. 記錄 BOM 表身子階的相關訊息，包含子階料號、單位用量、良率、發料方式 ... 等等；

Key Columns	Description	必要
BILL_SEQUENCE_ID	母階料號 BOM 的 ID	Y
COMPONENT_SEQUENCE_ID	此筆子階資料的 ID (從 BOM_INVENTORY_COMPONENTS_S 取值)	Y
COMMON_COMPONENT_SEQUENCE_ID	如果此 BOM 是 Common BOM，此欄位是子階資料來源 ID	
ITEM_NUM	此筆子階在 BOM 中的排列順序號碼	Y
OPERATION_SEQ_NUM	投料站	Y
COMPONENT_ITEM_ID	子階料號 ID	Y
COMPONENT_QUANTITY	單位用量	Y
COMPONENT_YIELD_FACTOR	良率	Y
BASIS_TYPE	用量基礎 (1: Item, 2: Lot)	Y
WIP_SUPPLY_TYPE	工單發料方式 (1: Push, 2: Assembly Pull, 3: Operation Pull, 4: Bulk, 5: Supplier, 6: Phantom)	Y
SUPPLY_SUBINVENTORY	預設發料倉庫	
SUPPLY_LOCATOR_ID	預設發料儲位	
EFFECTIVITY_DATE	生效日期	Y
DISABLE_DATE	失效日期	

BOM_INVENTORY_COMPONENTS

BOM_COMPONENTS_B

(續)

Key Columns	Description	必要
INCLUDE_IN_COST_ROLLUP	成本滾算時是否計入此項子階材料的成本 (1: Yes, 2: No)	Y
CHANGE_NOTICE	ECO 號碼 (如果此筆子階是透過 ECO 加入或失效，會加上此項資料)	
ACD_TYPE	ECO 動作 (1: Add, 2: Change, 3: Disable)	
OLD_COMPONENT_SEQUENCE_ID	如果是透過 ECO 進行變更，此筆是新資料時，此欄位註記對應的舊資料 ID	
IMPLEMENTATION_DATE	實施日期 (ECO 的生效日期)	
COMPONENT_REMARKS	子階的備註訊息	
BOM_ITEM_TYPE	子階料號的 BOM 類型屬性 (1: Model ,2: Option class ,3: Planning ,4: Standard ,5: Product Family)	Y
PLANNING_FACTOR	計劃百分比 (只用於 Model, Option Class, Planning 和 Product Family 類型的 BOM)	Y
PK1_VALUE	同 COMPONENT_ITEM_ID (子階料號 ID)	Y
PK2_VALUE	同 ORGANIZATION_ID (組織 ID)	Y

BOM_INVENTORY_COMPONENTS

BOM_COMPONENTS_B

Path: (N) BOM > Bills > Bills

Navigator - Bills of Material

Functions Documents

Bills:Bills

Define Bills of Material

- Bills
 - Bills
 - Bills (Lucas Test)
 - Indented Bills
 - Comparison
 - Item WhereUsed
 - Mass Changes
 - Import Bills and Routings
 - Documents
 - Create Common Bills
- + Routings
- ATO
- Delete Groups
- + Projects
- + Reports
- + Setup
- + Other

Bills of Material (M1)

Item AS54888 Sentinel Standard Desktop UOM Ea

Alternate

Revision B Date 07-JUN-2019 23:02:29 [.]

Display Future and Current ☒ Implemented Only

Main Date Effectivity Unit Effectivity ECO Component Details Material Control Order Management Purchasing Shipping

Item Seq		Operation Seq		Item Description	Revision	UOM	Basis	[.]
		Component						
310	1	SB86662		Desktop Case	A	Ea	Item	...
10	50	SB32982		Manual Set	A	Ea	Item	...
20	60	CM15138		Monitor - 17"	A	Ea	Item	...
30	60	CM18759		Keyboard - 101 Key	A	Ea	Item	...
40	60	CM28287		Optiball Wireless Mouse	A	Ea	Item	...

Substitutes Designators Operations Bill Details Revision

BOM_INVENTORY_COMPONENTS

BOM_COMPONENTS_B

Path: (N) BOM > Bills > Bills

Navigator - Bills of Material

Functions Documents

Bills:Bills

Define Bills of Material

- Bills
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 - Bills (Lucas Test)
 - Indented Bills
 - Comparison
 - Item WhereUsed
 - Mass Changes
 - Import Bills and Routings
 - Documents
 - Create Common Bills
- + Routings
- ATO
- Delete Groups
- + Projects
- + Reports
- + Setup
- + Other

Bills of Material (M1)

Item AS54888 Sentinel Standard Desktop UOM Ea

Alternate

Revision B Date 07-JUN-2019 23:02:29 [.]

Display Future and Current ☒ Implemented Only

Main Date Effectivity Unit Effectivity ECO Component Details Material Control Order Management Purchasing Shipping

Item Seq		Operation Seq	Component	From	To	[.]
310	1		SB86662	21-APR-2016 18:00:57		...
10	50		SB32982	09-APR-1997 00:22:44		...
20	60		CM15138	09-APR-1997 00:25:12		...
30	60		CM18759	09-APR-1997 00:25:00		...
40	60		CM28287	09-APR-1997 00:24:46		...

Substitutes Designators Operations Bill Details Revision

BOM_INVENTORY_COMPONENTS

BOM_COMPONENTS_B

Path: (N) BOM > Bills > Bills

The screenshot shows the 'Bills of Material (M1)' window. The left sidebar contains a tree view with 'Bills' selected. The main window has a header with 'Item AS54888', 'Sentinel Standard Desktop', 'UOM Ea', 'Revision B', and 'Date 07-JUN-2019 23:02:29'. Below the header is a 'Display' dropdown set to 'Future and Current' and a checked 'Implemented Only' checkbox. The main content area has tabs for 'Main', 'Date Effectivity', 'Unit Effectivity', 'ECO', 'Component Details', 'Material Control', 'Order Management', 'Purchasing', and 'Shipping'. The 'ECO' tab is active, showing a table of components. A red box highlights the table area.

Item Seq	Operation Seq	Component	Implemented	ECO
310	1	SB86662	<input checked="" type="checkbox"/>	
10	50	SB32982	<input checked="" type="checkbox"/>	
20	60	CM15138	<input checked="" type="checkbox"/>	
30	60	CM18759	<input checked="" type="checkbox"/>	
40	60	CM28287	<input checked="" type="checkbox"/>	

BOM_INVENTORY_COMPONENTS

BOM_COMPONENTS_B

Path: (N) BOM > Bills > Bills

Navigator - Bills of Material

Functions Documents

Bills:Bills

Define Bills of Material

- Bills
 - Bills
 - Bills (Lucas Test)
 - Indented Bills
 - Comparison
 - Item WhereUsed
 - Mass Changes
 - Import Bills and Routings
 - Documents
 - Create Common Bills
- + Routings
- ATO
- Delete Groups
- + Projects
- + Reports
- + Setup
- + Other

Bills of Material (M1)

Item AS54888 Sentinel Standard Desktop UOM Ea

Alternate

Revision B Date 07-JUN-2019 23:02:29 []

Display Future and Current ☒ Implemented Only

Main Date Effectivity Unit Effectivity ECO **Component Details** Material Control Order Management Purchasing Shipping

Item Seq	Operation Seq	Component	Planning %	Yield	Enforce Integer Quantity	Include In Cost Rollup	Type	Status	[]
310	1	SB86662	100	1	None	<input checked="" type="checkbox"/>	Subassembly	Active	...
10	50	SB32982	100	1		<input checked="" type="checkbox"/>	Subassembly	Active	...
20	60	CM15138	100	1		<input checked="" type="checkbox"/>	Purchased item	Active	...
30	60	CM18759	100	1		<input checked="" type="checkbox"/>	Purchased item	Active	...
40	60	CM28287	100	1		<input checked="" type="checkbox"/>	Purchased item	Active	...

Substitutes Designators Operations Bill Details Revision

BOM_INVENTORY_COMPONENTS

BOM_COMPONENTS_B

Path: (N) BOM > Bills > Bills

Navigator - Bills of Material

Functions Documents

Bills:Bills

Define Bills of Material

- Bills
 - Bills
 - Bills (Lucas Test)
 - Indented Bills
 - Comparison
 - Item WhereUsed
 - Mass Changes
 - Import Bills and Routings
 - Documents
 - Create Common Bills
- + Routings
- ATO
- Delete Groups
- + Projects
- + Reports
- + Setup
- + Other

Bills of Material (M1)

Item AS54888 Sentinel Standard Desktop UOM Ea

Alternate

Revision B Date 07-JUN-2019 23:02:29 [.]

Display Future and Current ☒ Implemented Only

Main Date Effectivity Unit Effectivity ECO Component Details Material Control Order Management Purchasing Shipping

Item Seq		Operation Seq	Component	Supply Type	Subinventory	Locator	[.]
310	1		SB86662	Phantom			...
10	50		SB32982	Operation Pull			...
20	60		CM15138	Operation Pull			...
30	60		CM18759	Operation Pull			...
40	60		CM28287	Operation Pull			...

Substitutes Designators Operations Bill Details Revision

BOM_INVENTORY_COMPONENTS

BOM_COMPONENTS_B

Path: (N) BOM > Bills > Bills

Navigator - Bills of Material

Functions Documents

Bills:Bills

Define Bills of Material

- Bills
 - Bills
 - Bills (Lucas Test)
 - Indented Bills
 - Comparison
 - Item WhereUsed
 - Mass Changes
 - Import Bills and Routings
 - Documents
 - Create Common Bills
- + Routings
- ATO
- Delete Groups
- + Projects
- + Reports
- + Setup
- + Other

Bills of Material (M1)

Item AS54888 Sentinel Standard Desktop UOM Ea

Alternate

Revision B Date 07-JUN-2019 23:02:29

Display Future and Current ☒ Implemented Only

Unit Effectivity ECO Component Details Material Control Order Management Purchasing Shipping Comments

Item Seq	Operation Seq	Component	Comments
310	1	SB86662	
10	50	SB32982	
20	60	CM15138	
30	60	CM18759	
40	60	CM28287	

Substitutes Designators Operations Bill Details Revision

BOM_SUBSTITUTE_COMPONENTS

BOM 表身：子階料號替代料明細

1. 記錄 BOM 表身子料的替代料相關訊息，包含替代料號、單位用量 ... 等等；

Key Columns	Description	必要
COMPONENT_SEQUENCE_ID	子階資料的 ID	Y
COMMON_COMPONENT_SEQUENCE_ID	子階資料來源 ID (用於 Common BOM)	
SUBSTITUTE_COMPONENT_ID	替代料料號 ID	Y
SUBSTITUTE_ITEM_QUANTITY	替代料用量	Y
CHANGE_NOTICE	ECO 號碼 (如果此筆替代料是透過 ECO 加入或失效，會加上此項資料)	
ACD_TYPE	ECO 動作 (1: Add, 2: Change, 3: Disable)	

BOM_SUBSTITUTE_COMPONENTS

Path: (N) BOM > Bills > Bills > (Button) Substitutes

The screenshot shows the SAP Navigator - Bills of Material interface. The left-hand menu is expanded to 'Bills', and the 'Substitutes' button is highlighted with a red box. The main window displays the 'Bills of Material (M1)' for item AS54888, 'Sentinel Standard Desktop'. The 'Substitutes' button is also highlighted with a red box. The 'Substitute Components (M1)' window is open, showing a table of substitute components. The table has columns for Substitute Component, Description, UOM, Quantity, and Inve. Usag. []. The table contains three rows of data, with the first row highlighted in yellow.

Substitute Component	Description	UOM	Quantity	Inve. Usag. []
SB86664	Tower Case - Mini	Ea	.00001	100.
SB86666	Tower Case - Mid	Ea	.00001	100.
SB86668	Tower Case - Full	Ea	.00001	100.

BOM_REFERENCE_DESIGNATORS

BOM 表身：子階料號插件位置明細

1. 記錄 BOM 表身子料的插件位置相關訊息，包含插件位置名稱、說明 ... 等等；

Key Columns	Description	必要
COMPONENT_SEQUENCE_ID	子階資料的 ID	Y
COMMON_COMPONENT_SEQUENCE_ID	子階資料來源 ID (用於 Common BOM)	
COMPONENT_REFERENCE_DESIGNATOR	插件位置名稱	Y
REF_DESIGNATOR_COMMENT	插件位置說明	
CHANGE_NOTICE	ECO 號碼 (如果此筆資料是透過 ECO 加入或失效，會加上此項資料)	
ACD_TYPE	ECO 動作 (1: Add, 2: Change, 3: Disable)	

BOM_REFERENCE_DESIGNATORS

Path: (N) BOM > Bills > Bills > (Button) Designators

The screenshot shows the SAP Navigator - Bills of Material interface. The left sidebar contains a tree view under 'Bills' with the following items: Bills, Bills (Lucas Test), Indented Bills, Comparison, Item WhereUsed, Mass Changes, Import Bills and Routings, Documents, Create Common Bills, + Routings, ATO, Delete Groups, + Projects, + Reports, + Setup, and + Other. The 'Designators' button is highlighted in the bottom right of the 'Bills of Material (M1)' window.

The 'Bills of Material (M1)' window displays the following data:

- Item: AS54888
- Alternate:
- Revision: B
- Display: Future and Current
- Bill: AS54888
- Component: SB86662
- Item Seq: 310
- Effective Date: 21-APR-2016 18:00:57
- Operation Seq: 1
- Quantity: .00001
- Total Quantity: 1

The 'Reference Designators' dialog is open, showing a table with the following data:

Reference Designator	Description
0001	

The 'Designators' button is highlighted in the bottom right of the 'Bills of Material (M1)' window.

MTL_ITEM_REVISIONS_B

BOM 版本表 (即料號版本表)

1. 記錄 BOM 的版本號碼與生效日期；此 BOM 版本表內容即料號的版本表；

Key Columns	Description	必要
ORGANIZATION_ID	組織 ID	Y
INVENTORY_ITEM_ID	料號 ID	Y
REVISION	版本號碼	Y
REVISION_LABEL	版本標籤	Y
EFFECTIVITY_DATE	版本生效日期	Y
REVISION_ID	版本 ID (從 MTL_ITEM_REVISIONS_B_S 取值)	Y
DESCRIPTION	版本說明	
CHANGE_NOTICE	ECO 號碼 (如果此筆版本資料是透過 ECO 加入，會加上此項資料)	
IMPLEMENTATION_DATE	實施日期 (ECO 的生效日期)	

MTL_ITEM_REVISIONS_TL

BOM 版本表多語系說明

1. 記錄 BOM 的版本號碼的多語系說明；

Key Columns	Description	必要
ORGANIZATION_ID	組織 ID	Y
INVENTORY_ITEM_ID	料號 ID	Y
REVISION_ID	版本 ID	Y
LANGUAGE	語言	Y
SOURCE_LANG	來源語言	Y
DESCRIPTION	此版本在此語言的說明	

MTL_ITEM_REVISIONS_B

Path: (N) BOM > Bills > Bills > (Button) Revision

The screenshot displays the SAP Navigator - Bills of Material interface. The main window is titled "Bills of Material (M1)" and shows details for item AS54888, "Sentinel Standard Desktop", with UOM "Ea". The revision is set to "B" and the date is "07-JUN-2019 23:02:29". The display is set to "Future and Current" and the "Implemented Only" checkbox is checked.

Overlaid on this is the "Item Revisions (M1) - AS54888" window. This window contains a table with the following columns: Revision, Label, Description, Effective Date, Implementation Date, and Initiation Date. The table lists two revisions: Revision B (effective 28-AUG-2017 17:30:19) and Revision A (effective 07-APR-1997 15:58:35). The Revision B row is highlighted in yellow.

At the bottom right of the "Item Revisions (M1)" window, there is a "Revision" button, which is highlighted with a red rectangle in the original image.

Revision	Label	Description	Effective Date	Implementation Date	Initiation Date
B	B		28-AUG-2017 17:30:19	28-AUG-2017 17:30:19	
A	A		07-APR-1997 15:58:35	07-APR-1997 15:58:35	

Contents

- BOM Base Tables
- BOM Interfaces
- Routing Base Tables
- Routing Interfaces
- ECO Base Tables
- ECO Interfaces

BOM Interfaces

Table Name	Alias	Description
BOM_BILL_OF_MTLS_INTERFACE	bbomi	BOM 表頭介面檔
BOM_INVENTORY_COMPS_INTERFACE	bici	BOM 表身子階明細介面檔
BOM_SUB_COMPS_INTERFACE	bsci	BOM 表身子階替代料明細介面檔
BOM_REF_DESGS_INTERFACE	brdi	BOM 表身子階插件位置明細介面檔
MTL_ITEM_REVISIONS_INTERFACE	miri	BOM 版本表 (即料號版本表) 介面檔

BOM_BILL_OF_MTLS_INTERFACE

BOM 表頭介面檔

1. 要從外部匯入或修改 BOM 表頭資料時，先將資料寫入這個 table，再執行「Bill and Routing Interface」程式匯入；

Key Columns	Description	必要
BATCH_ID	匯入批次 ID	Y
BILL_SEQUENCE_ID	BOM 的 ID (從 BOM_INVENTORY_COMPONENTS_S 取值)	Y
ORGANIZATION_ID	組織 ID	二選一
ORGANIZATION_CODE	組織代碼	
ASSEMBLY_ITEM_ID	母階料號 ID	Y
ASSEMBLY_TYPE	M-BOM 或 E-BOM (1: Manufacturing, 2: Engineering)	Y
ALTERNATE_BOM_DESIGNATOR	主/替代名稱 (NULL 為主 BOM，有值時為替代 BOM)	
COMMON_ORGANIZATION_ID	如果是共用 BOM，此欄為來源 BOM 的組織 ID	二選一
COMMON_ORG_CODE	如果是共用 BOM，此欄為來源 BOM 的組織代碼	
COMMON_ASSEMBLY_ITEM_ID	如果是共用 BOM，此欄為來源 BOM 的母階料號 ID	二選一
COMMON_ITEM_NUMBER	如果是共用 BOM，此欄為來源 BOM 的母階料號	
COMMON_BILL_SEQUENCE_ID	如果是共用 BOM，此欄為來源 BOM 的 ID；如果不是，則與 BOM ID 相同	Y
SOURCE_BILL_SEQUENCE_ID	如果是複製 BOM，此欄為來源 BOM 的 ID；如果不是，則與 BOM ID 相同	Y
IMPLEMENTATION_DATE	BOM 實施日期 (E-BOM 轉 M-BOM，研發轉量產)	
SPECIFIC_ASSEMBLY_COMMENT	BOM Detail 裡面的註解文字	

BOM_BILL_OF_MTLS_INTERFACE

(續)

Key Columns	Description	必要
PK1_VALUE	同 ASSEMBLY_ITEM_ID (母階料號 ID)	Y
PK2_VALUE	同 ORGANIZATION_ID (組織 ID)	Y
PROCESS_FLAG	處理狀態 (1: Awaiting validation , 2: Validation started, 3: Validation failed, 4: Validation succeeded, 5: Processing started, 6: Processing failed, 7: Processing succeeded)	Y
TRANSACTION_TYPE	要執行的動作 (CREATE, UPDATE, DELETE)	Y

BOM_BILL_OF_MTLS_INTERFACE

補充說明：

1. 也可以直接 Call API **BOM_BO_PUB.PROCESS_BOM** 直接傳入資料並執行匯入；

(1) 一次只能處理一個母階料號；

(2) 使用以下參數直接傳入母階、子階、替代料、插件位置和版本資料：

p_bom_header_rec	BOM_BO_PUB.BOM_HEAD_REC_TYPE
p_bom_revision_tbl	BOM_BO_PUB.BOM_REVISION_TBL_TYPE
p_bom_component_tbl	BOM_BO_PUB.BOM_COMPS_TBL_TYPE
p_bom_ref_designator_tbl	BOM_BO_PUB.BOM_REF_DESIGNATOR_TBL_TYPE
p_bom_sub_component_tbl	BOM_BO_PUB.BOM_SUB_COMPONENT_TBL_TYPE

(3) 依照傳回值 x_returnStatus = FND_API.G_RET_STS_SUCCESS 判斷是否成功匯入；

(4) 如果匯入時有錯誤，可以使用以下方式取得錯誤訊息內容；

```
ERROR_HANDLER.GET_MESSAGE_LIST(x_message_list => l_error_table);

FOR i IN 1..l_error_table.COUNT LOOP
    DBMS_OUTPUT.PUT_LINE(to_char(i)||':'||l_error_table(i).entity_index||':'||l_error_table(i).table_name);
    DBMS_OUTPUT.PUT_LINE(to_char(i)||':'||l_error_table(i).message_text);
END LOOP;
```

BOM_BILL_OF_MTLS_INTERFACE

Path: (N) BOM > Bills > Import Bills and Routings

The screenshot displays the 'Navigator - Manufacturing and Distribution Manager' application. The left sidebar shows a tree view of functions, with 'Import Bills and Routings' highlighted. The main window shows the 'Submit Request (M1)' dialog, which is used to configure and execute a request. The 'Name' field is set to 'Bill and Routing Interface'. The 'Language' is set to 'American English'. The 'Run the Job' option is set to 'As Soon as Possible'. The 'Upon Completion...' section shows 'Save all Output Files' checked. The 'Parameters' dialog is open, showing the following settings:

Parameter	Value
All Organizations	Yes
Import Routings	Yes
Import Bills of Material	Yes
Delete Processed Rows	No
Batch Id	

BOM_INVENTORY_COMPS_INTERFACE

BOM 表身子階明細介面檔

1. 要從外部匯入或修改 BOM 表身子階時，先將資料寫入這個 table，再執行「Bill and Routing Interface」程式匯入；

Key Columns	Description		必要
BATCH_ID	匯入批次 ID		Y
BILL_SEQUENCE_ID	BOM 的 ID		1. 有 BILL_SEQUENCE_ID 時，直接使用它定位要匯入資料的 BOM； 2. 沒有 BILL_SEQUENCE_ID 時，使用另外三項資料 (組織、母階料號、主/替代名稱) 定位要匯入資料的 BOM；
ORGANIZATION_ID	組織 ID	二選一	
ORGANIZATION_CODE	組織代碼		
ASSEMBLY_ITEM_ID	母階料號 ID	二選一	
ASSEMBLY_ITEM_NUMBER	母階料號		
ALTERNATE_BOM_DESIGNATOR	主/替代名稱		
COMPONENT_SEQUENCE_ID	子階資料的 ID		
OPERATION_SEQ_NUM	投料站號碼		
COMPONENT_ITEM_ID	子階料號 ID	二選一	
COMPONENT_ITEM_NUMBER	子階料號		
EFFECTIVITY_DATE	生效日期		
COMMON_COMPONENT_SEQUENCE_ID	如果此 BOM 是 Common BOM，此欄位是子階資料來源 ID		
ITEM_NUM	此筆子階在 BOM 中的排列順序號碼		Y
COMPONENT_QUANTITY	單位用量		Y

BOM_INVENTORY_COMPS_INTERFACE

(續)

Key Columns	Description	必要
COMPONENT_YIELD_FACTOR	良率	Y
BASIS_TYPE	用量基礎 (1: Item, 2: Lot)	Y
WIP_SUPPLY_TYPE	工單發料方式 (1: Push, 2: Assembly Pull, 3: Operation Pull, 4: Bulk, 5: Supplier, 6: Phantom)	Y
SUPPLY_SUBINVENTORY	預設發料倉庫	
SUPPLY_LOCATOR_ID	預設發料儲位	
DISABLE_DATE	失效日期	
INCLUDE_IN_COST_ROLLUP	成本滾算時是否計入此項子階材料的成本 (1: Yes, 2: No)	Y
IMPLEMENTATION_DATE	實施日期 (ECO 的生效日期)	
COMPONENT_REMARKS	子階的備註訊息	
BOM_ITEM_TYPE	子階料號的 BOM 類型屬性 (1: Model ,2: Option class ,3: Planning ,4: Standard ,5: Product Family)	Y
PLANNING_FACTOR	計劃百分比 (只用於 Model, Option Class, Planning 和 Product Family 類型的 BOM)	Y
PK1_VALUE	同 COMPONENT_ITEM_ID (子階料號 ID)	Y
PK2_VALUE	同 ORGANIZATION_ID (組織 ID)	Y
PROCESS_FLAG	處理狀態 (1: Awaiting validation , 2: Validation started, 3: Validation failed, 4: Validation succeeded, 5: Processing started, 6: Processing failed, 7: Processing succeeded)	Y
TRANSACTION_TYPE	要執行的動作 (CREATE, UPDATE, DELETE)	Y

BOM_INVENTORY_COMPS_INTERFACE

(續)

Key Columns	Description		必要
SUBSTITUTE_COMP_ID	替代料 ID	1. 可以在匯入子階料件時，同時匯入一項替代料及一項插件位置； 2. 替代料可用料號或 ID，二選一；	
SUBSTITUTE_COMP_NUMBER	替代料料號		
REFERENCE_DESIGNATOR	插件位置		
NEW_EFFECTIVITY_DATE	舊的生效日期	用於變更生效日期時，且二者都必須提供； 舊的生效日期的年月日時分秒必須與目前 BOM 上面的資料完全相同；	
OLD_EFFECTIVITY_DATE	新的生效日期		
NEW_OPERATION_SEQ_NUM	舊的投料站號碼	用於變更投料站時，且二者都必須提供；	
OLD_OPERATION_SEQ_NUM	新的投料站號碼		

BOM_SUB_COMPS_INTERFACE

BOM 表身子階替代料明細介面檔

1. 要從外部匯入或修改 BOM 表身替代料時，先將資料寫入這個 table，再執行「Bill and Routing Interface」程式匯入；

Key Columns		Description		必要
BATCH_ID	匯入批次 ID			Y
BILL_SEQUENCE_ID	BOM 的 ID		1. 有 BILL_SEQUENCE_ID 時，直接使用它定位要匯入資料的 BOM ； 2. 沒有 BILL_SEQUENCE_ID 時，使用另外三項資料 (組織、母階料號、主/替代名稱) 定位要匯入資料的 BOM ；	
ORGANIZATION_ID	組織 ID	二選一		
ORGANIZATION_CODE	組織代碼			
ASSEMBLY_ITEM_ID	母階料號 ID	二選一		
ASSEMBLY_ITEM_NUMBER	母階料號			
ALTERNATE_BOM_DESIGNATOR	主/替代名稱			
COMPONENT_SEQUENCE_ID	子階資料的 ID		1. 有指定 COMPONENT_SEQUENCE_ID 時，直接使用它定位 BOM 子階記錄 ； 2. 如果沒有，使用另外三項資料 (投料站、子階料號、生效日期) 定位 BOM 子階記錄 ；	
OPERATION_SEQ_NUM	投料站			
COMPONENT_ITEM_ID	子階料號 ID	二選一		
COMPONENT_ITEM_NUMBER	子階料號			
EFFECTIVITY_DATE	生效日期			
SUBSTITUTE_COMPONENT_ID	替代料 ID			二選一
SUBSTITUTE_COMP_NUMBER	替代料料號			
SUBSTITUTE_ITEM_QUANTITY	替代料單位用量			Y

BOM_SUB_COMPS_INTERFACE

(續)

Key Columns	Description	必要
PROCESS_FLAG	處理狀態 (1: Awaiting validation , 2: Validation started, 3: Validation failed, 4: Validation succeeded, 5: Processing started, 6: Processing failed, 7: Processing succeeded)	Y
TRANSACTION_TYPE	要執行的動作 (CREATE, UPDATE, DELETE)	Y

BOM_REF_DESGS_INTERFACE

BOM 表身子階插件位置明細介面檔

1. 要從外部匯入或修改 BOM 表身插件位置，先將資料寫入這個 table，再執行「Bill and Routing Interface」程式匯入；

Key Columns	Description		必要
BATCH_ID	匯入批次 ID		Y
BILL_SEQUENCE_ID	BOM 的 ID		1. 有 BILL_SEQUENCE_ID 時，直接使用它定位要匯入資料的 BOM ； 2. 沒有 BILL_SEQUENCE_ID 時，使用另外三項資料 (組織、母階料號、主/替代名稱) 定位要匯入資料的 BOM ；
ORGANIZATION_ID	組織 ID	二選一	
ORGANIZATION_CODE	組織代碼		
ASSEMBLY_ITEM_ID	母階料號 ID	二選一	
ASSEMBLY_ITEM_NUMBER	母階料號		
ALTERNATE_BOM_DESIGNATOR	主/替代名稱		
COMPONENT_SEQUENCE_ID	子階資料的 ID		1. 有指定 COMPONENT_SEQUENCE_ID 時，直接使用它定位 BOM 子階記錄 ； 2. 如果沒有，使用另外三項資料 (投料站、子階料號、生效日期) 定位 BOM 子階記錄 ；
OPERATION_SEQ_NUM	投料站		
COMPONENT_ITEM_ID	子階料號 ID	二選一	
COMPONENT_ITEM_NUMBER	子階料號		
EFFECTIVITY_DATE	生效日期		
COMPONENT_REFERENCE_DESIGNATOR	插件位置		Y
REF_DESIGNATOR_COMMENT	插件位置備註文字		

BOM_REF_DESGS_INTERFACE

(續)

Key Columns	Description	必要
PROCESS_FLAG	處理狀態 (1: Awaiting validation, 2: Validation started, 3: Validation failed, 4: Validation succeeded, 5: Processing started, 6: Processing failed, 7: Processing succeeded)	Y
TRANSACTION_TYPE	要執行的動作 (CREATE, UPDATE, DELETE)	Y

MTL_ITEM_REVISIONS_INTERFACE

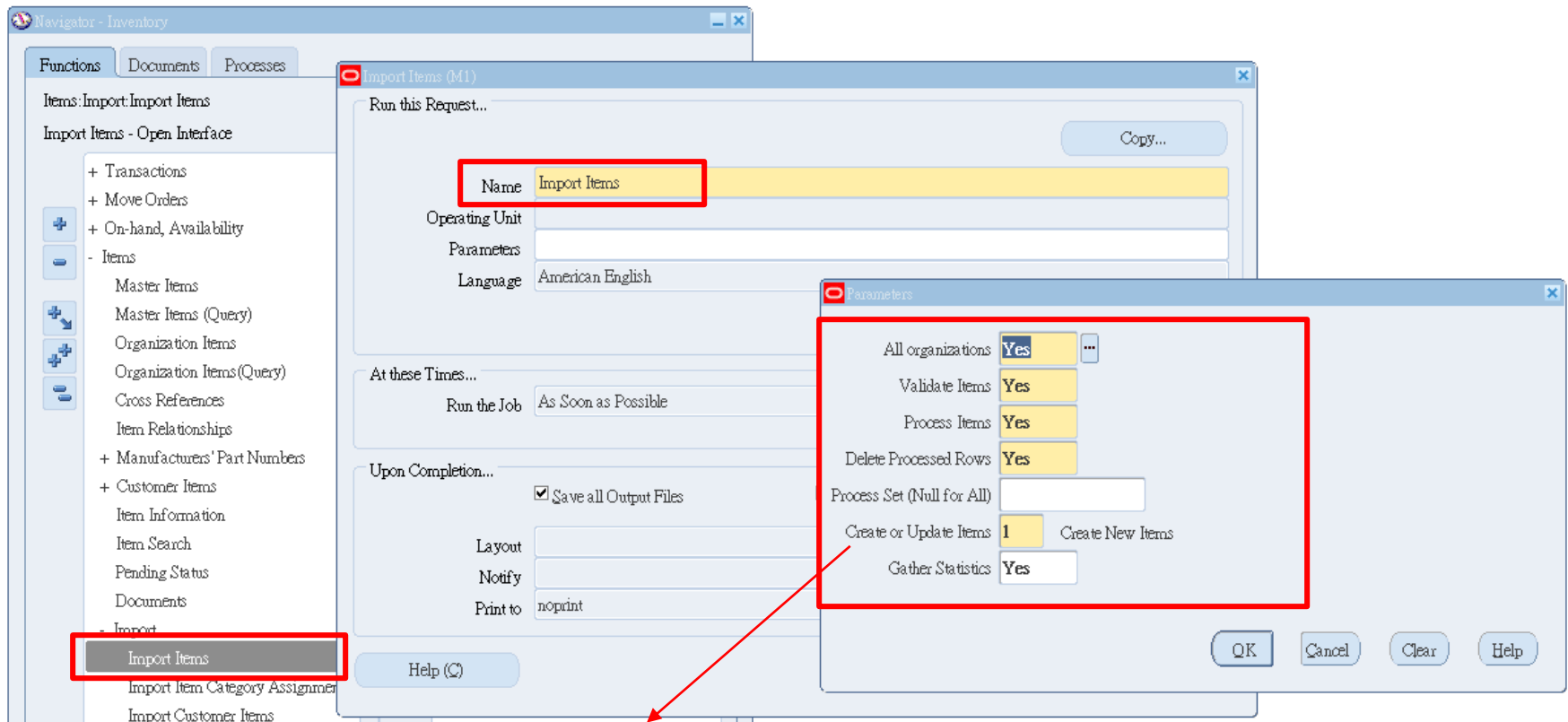
BOM 版本表 (即料號版本表) 介面檔

- 要從外部匯入 BOM 版本表，先將資料寫入這個 table，再執行「Import Items」程式匯入；
 - 可以單獨只寫入此 table 的資料就執行匯入，不需要同時寫入 MTL_SYSTEM_ITEMS_INTERFACE；
 - 執行時，參數「Create or Update Items」要與 TRANSACTION_TYPE 搭配 (見下頁)；
- 匯入失敗時，可以從 [MTL_INTERFACE_ERRORS](#) 取得錯誤訊息明細；

Key Columns	Description	必要
SET_PROCESS_ID	匯入批次 ID (即「Import Items」程式的 Process Set 參數)	
ORGANIZATION_ID	組織 ID	二選一
ORGANIZATION_CODE	組織代碼	
INVENTORY_ITEM_ID	料號 ID	二選一
ITEM_NUMBER	料號	
REVISION_ID	版本 ID (從 MTL_ITEM_REVISIONS_B_S 取值)	
REVISION	版本號碼	Y
REVISION_LABEL	版本標籤	Y
EFFECTIVITY_DATE	版本生效日期	Y
DESCRIPTION	版本說明	
PROCESS_FLAG	處理狀態 (1: Awaiting validation , 2: Validation started, 3: Validation failed, 4: Validation succeeded, 5: Processing started, 6: Processing failed, 7: Processing succeeded)	Y
TRANSACTION_TYPE	要執行的動作 (CREATE, UPDATE, DELETE)	Y

MTL_ITEM_REVISIONS_INTERFACE

Path: (N) INV > Items > Import > Import Items



參數「Create or Update Items」要與 TRANSACTION_TYPE 搭配：

1: Create New Items => 只處理 TRANSACTION_TYPE = CREATE 的資料；

2: Update Existing Items => 只處理 TRANSACTION_TYPE = UPDATE, DELETE 的資料；

Contents

- BOM Base Tables
- BOM Interfaces
- Routing Base Tables
- Routing Interfaces
- ECO Base Tables
- ECO Interfaces

Routing Base Tables

Table Name	Alias	Description
BOM_OPERATIONAL_ROUTINGS	bort	Routing 表頭：組裝料號明細
BOM_OPERATION_SEQUENCES	bos	Routing 表身：加工站明細
BOM_OPERATION_RESOURCES	bors	Routing 表身：加工站內資源明細
MTL_RTG_ITEM_REVISIONS	mrir	Routing 版本表

BOM_OPERATIONAL_ROUTINGS

Routing 表頭：組裝料號明細

1. 記錄 Routing 表頭相關訊息，包含組裝料號、主/替代名稱、共用 Routing ... 等等；

Key Columns	Description	必要
ROUTING_SEQUENCE_ID	Routing 的 ID (從 BOM_OPERATIONAL_ROUTINGS_S 取值)	Y
ORGANIZATION_ID	組織 ID	Y
ASSEMBLY_ITEM_ID	組裝料號 ID	Y
ROUTING_TYPE	M-Routing 或 E-Routing (1: Manufacturing, 2: Engineering)	Y
ALTERNATE_ROUTING_DESIGNATOR	主/替代名稱 (NULL 為主 Routing，有值時為替代 Routing)	
COMMON_ASSEMBLY_ITEM_ID	如果是共用 Routing，此欄為來源 Routing 的組裝料號 ID	
COMMON_ROUTING_SEQUENCE_ID	如果是共用 Routing，此欄為來源 Routing 的 ID； 如果不是，則與 Routing ID 相同	Y
IMPLEMENTATION_DATE	Routing 實施日期 (E-Routing 轉 M-Routing，研發轉量產)	
ROUTING_COMMENT	Routing Detail 裡面的註解文字	
COMPLETION_SUBINVENTORY	預設完工入庫庫房	
COMPLETION_LOCATOR_ID	預設完工入庫儲位 ID	

BOM_OPERATIONAL_ROUTINGS

Path: (N) BOM > Routings > Routings

Navigator - Bills of Material

Functions Documents

Routings: Routings

Define Routings

- + Bills
- Routings
- + Routings
- Standard Operations
- Departments
- + Resources
- + Resource WhereUsed
- Lead Times
- Import
- Documents
- Setup Standard Operations
- Setup Types
- ATO
- Delete Groups
- + Projects
- + Reports
- + Setup
- + Other

Routings (M1)

Item: AS54888-LCS01 Sentinel Standard Desktop (Lucas Test 01) 20160630 UOM: Ea

Alternate: Capable To Promise

Revision: A Date: 08-JUN-2019 15:21:50

Display: Future and Current ☒ Implemented Only

Operations

Main Date Effectivity WIP Operation Yield ECO Description

Seq	Code	Department	Option Dependent	Lead Time %
10		OUTSIDE	<input type="checkbox"/>	
20		ASSEMBLY	<input type="checkbox"/>	
			<input type="checkbox"/>	
			<input type="checkbox"/>	
			<input type="checkbox"/>	

Routing Details Routing Revisions Operation Resources Operation Competencies

BOM_OPERATIONAL_ROUTINGS

Path: (N) BOM > Routings > Routings > (Button) Routing Details

The screenshot displays the 'Navigator - Bills of Material' application interface. The left sidebar shows a tree view under 'Routings: Routings' with 'Define Routings' expanded, and 'Routing Details' highlighted. The main window, titled 'Routings (M1)', shows the 'Routing Details (M1)' window open. The 'Routing Details (M1)' window contains the following fields:

- Item: AS54888-LCS01
- Sentinel Standard Desktop (Lucas Test 01) 20160630
- UOM: Ea
- Alternate:
- Capable To Promise: ☐
- Revision: A
- Date: 08-JUN-2019 15:21:50
- Display: Future
- Operations:

Seq	Code	Dep
10		<input type="checkbox"/> OU
20		<input type="checkbox"/> AS
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
- Completion:
- Subinventory:
- Locator:
- Comment:
- Common Routing:
- Item:

BOM_OPERATION_SEQUENCES

Routing 表身：加工站明細

1. 記錄 Routing 表身加工站相關訊息，包含站別號碼、標準作業站、部門 ... 等等；

Key Columns	Description	必要
ROUTING_SEQUENCE_ID	Routing 的 ID	Y
OPERATION_SEQUENCE_ID	此筆加工站資料的 ID (從 BOM_OPERATION_SEQUENCES_S 取值)	Y
OPERATION_SEQ_NUM	加工站編號	Y
STANDARD_OPERATION_ID	標準作業站 ID	Y
REFERENCE_FLAG	是否完全參考標準作業站內容 (1: Yes, 2: No)	Y
DEPARTMENT_ID	部門 ID	Y
OPERATION_LEAD_TIME_PERCENT	此加工站開工時間點在整個 Routing 總加工時間的比例	
EFFECTIVITY_DATE	生效日期	Y
DISABLE_DATE	失效日期	
COUNT_POINT_TYPE	是否為計數站 (Count Point) 和自動認列資源站 (Autocharge) 1: Count Point = Yes, Autocharge = Yes 2: Count Point = No, Autocharge = Yes 3: Count Point = No, Autocharge = No	Y
BACKFLUSH_FLAG	是否為扣料站 (是否要在本站觸發 Backflush) (1: Yes 2: No)	Y
OPERATION_DESCRIPTION	此加工站的備註訊息	

BOM_OPERATION_SEQUENCES

(續)

Key Columns	Description	必要
CHANGE_NOTICE	ECO 號碼 (如果此筆資料是透過 ECO 加入或失效，會加上此項資料)	
ACD_TYPE	ECO 動作 (1: Add, 2: Change, 3: Disable)	
OLD_OPERATION_SEQUENCE_ID	如果是透過 ECO 進行變更，此筆是新資料時，此欄位註記對應的舊資料 ID	
IMPLEMENTATION_DATE	實施日期 (ECO 的生效日期)	

BOM_OPERATION_SEQUENCES

Path: (N) BOM > Routings > Routings

Navigator - Bills of Material

Functions Documents

Routings: Routings

Define Routings

- + Bills
- Routings
- + Routings
- Standard Operations
- Departments
- + Resources
- + Resource WhereUsed
- Lead Times
- Import
- Documents
- Setup Standard Operations
- Setup Types
- ATO
- Delete Groups
- + Projects
- + Reports
- + Setup
- + Other

Routings (M1)

Item: AS54888-LCS01 Sentinel Standard Desktop (Lucas Test 01) 20160630 UOM: Ea

Alternate: Capable To Promise

Revision: A Date: 08-JUN-2019 15:21:50

Display: Future and Current ☒ Implemented Only

Operations

Main Date Effectivity WIP Operation Yield ECO Description

Seq	Code	Department	Option Dependent	Lead Time %
10		OUTSIDE	<input type="checkbox"/>	
20		ASSEMBLY	<input type="checkbox"/>	
			<input type="checkbox"/>	
			<input type="checkbox"/>	
			<input type="checkbox"/>	

Routing Details Routing Revisions Operation Resources Operation Competencies

BOM_OPERATION_SEQUENCES

Path: (N) BOM > Routings > Routings

Navigator - Bills of Material

Functions Documents

Routings: Routings

Define Routings

- + Bills
- Routings
 - Routings**
 - Standard Operations
 - Departments
 - Resources
 - Resource WhereUsed
 - Lead Times
 - Import
 - Documents
 - Setup Standard Operations
 - Setup Types
- ATO
- Delete Groups
- + Projects
- + Reports
- + Setup
- + Other

Routings (M1)

Item: AS54888-LCS01 Sentinel Standard Desktop (Lucas Test 01) 20160630 UOM: Ea

Alternate: Capable To Promise

Revision: A Date: 08-JUN-2019 15:21:50 []

Display: Future and Current ☒ Implemented Only

Operations

Main Date Effectivity WIP Operation Yield ECO Description

Seq	Code	Effectivity Date	Disable Date
10		30-JUN-2016 15:48:07	
20		21-APR-2019 14:55:30	

Routing Details Routing Revisions Operation Resources Operation Competencies

BOM_OPERATION_SEQUENCES

Path: (N) BOM > Routings > Routings

Navigator - Bills of Material

Functions Documents

Routings: Routings

Define Routings

- + Bills
- Routings
 - Routings
 - Standard Operations
 - Departments
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Routings (M1)

Item: AS54888-LCS01 Sentinel Standard Desktop (Lucas Test 01) 20160630 UOM: Ea

Alternate: ☐ Capable To Promise

Revision: A Date: 08-JUN-2019 15:21:50 []

Display: Future and Current ☒ Implemented Only

Operations

Main Date Effectivity WIP Operation Yield ECO Description

Seq	Code	Referenced	Count Point	Autocharge	Backflush	Check Skill	Min Transfer Qty	[]
10		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0	
20		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Routing Details Routing Revisions Operation Resources Operation Competencies

BOM_OPERATION_SEQUENCES

Path: (N) BOM > Routings > Routings

Navigator - Bills of Material

Functions Documents

Routings: Routings

Define Routings

- + Bills
- Routings
- + Routings
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- + Setup
- + Other

Routings (M1)

Item: AS54888-LCS01 Sentinel Standard Desktop (Lucas Test 01) 20160630 UOM: Ea

Alternate: Capable To Promise

Revision: A Date: 08-JUN-2019 15:21:50

Display: Future and Current ☒ Implemented Only

Operations

Seq	Code	Implemented	ECO
10		<input checked="" type="checkbox"/>	
20		<input checked="" type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	

Routing Details Routing Revisions Operation Resources Operation Competencies

BOM_OPERATION_SEQUENCES

Path: (N) BOM > Routings > Routings

Navigator - Bills of Material

Functions Documents

Routings: Routings

Define Routings

- + Bills
- Routings
 - Routings
 - Standard Operations
 - Departments
 - Resources
 - Resource WhereUsed
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 - Import
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 - Setup Types
 - ATO
 - Delete Groups
- + Projects
- + Reports
- + Setup
- + Other

Routings (M1)

Item: AS54888-LCS01 Sentinel Standard Desktop (Lucas Test 01) 20160630 UOM: Ea

Alternate: ☐ Capable To Promise

Revision: A Date: 08-JUN-2019 15:21:50 []

Display: Future and Current ☒ Implemented Only

Operations

Main Date Effectivity WIP Operation Yield ECO Description

Seq	Code	Referenced	Description
10		<input type="checkbox"/>	
20		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	

Routing Details Routing Revisions Operation Resources Operation Competencies

BOM_OPERATION_RESOURCES

Routing 表身：加工站內資源明細

1. 記錄 Routing 表身加工站內資源相關訊息，包含站別號碼、資源號碼、資源 ID、標準用量、認列方式 ... 等等；

Key Columns	Description	必要
OPERATION_SEQUENCE_ID	加工站資料的 ID	Y
RESOURCE_SEQ_NUM	資源號碼	Y
RESOURCE_ID	資源 ID	Y
SCHEDULE_FLAG	是否參與排程時間計算 (1: Yes, 2: No, 3: Prior, 4: Next)	Y
AUTOCHARGE_TYPE	資源認列方式 (1: WIP move 2: Manual 3: PO receipt 4: PO move)	Y
BASIS_TYPE	資源認列基礎 (1: By Item 2: By Lot)	Y
USAGE_RATE_OR_AMOUNT	資源項目單位用量	Y
STANDARD_RATE_FLAG	是否依照標準用量產生相關分錄	Y
CHANGE_NOTICE	ECO 號碼 (如果此筆資料是透過 ECO 加入或失效，會加上此項資料)	
ACD_TYPE	ECO 動作 (1: Add, 2: Change, 3: Disable)	

BOM_OPERATION_RESOURCES

Path: (N) BOM > Routings > Routings > (Button) Operation Resources

The screenshot displays the SAP Navigator - Bills of Material interface. The left-hand menu shows the navigation path: Routings > Routings > Operation Resources. The main window is titled 'Routings (M1)' and shows details for Item AS54888-LCS01, Revision A, and Date 08-JUN-2019 15:21:50. The 'Operations' tab is active, showing a table of operations. The 'Operation Resources' button is highlighted in the bottom right corner of the 'Routings (M1)' window. A second window, 'Operation Resources (M1)', is open, showing the 'Resources' tab with a table of resources. The table has columns for Seq, Resource, UOM, Basis, Rate or Amount, Usage, and Inverse. The first row shows Seq 10, Resource DL-LBR1, UOM HR, Basis Item, Rate or Amount 1.5, Usage 1.5, and Inverse 1.5. The 'Operation Resources' button is also highlighted in the bottom right corner of this window.

Routings (M1) Details:

- Item: AS54888-LCS01
- Sentinel Standard Desktop (Lucas Test 01) 20160630
- UOM: Ea
- Alternate:
- Capable To Promise: ☐
- Revision: A
- Date: 08-JUN-2019 15:21:50
- Display: Future and Current
- Implemented Only: ☒

Operations Table:

Seq	Code	Department	Option Dependent	Lead Time %
10		OUTSIDE	<input type="checkbox"/>	
20		ASSEMBLY	<input type="checkbox"/>	
			<input type="checkbox"/>	
			<input type="checkbox"/>	
			<input type="checkbox"/>	

Operation Resources (M1) Details:

- Item: AS54888-LCS01
- Alternate:
- Sequence: 20
- Effective Date: 21-APR-2019 14:55:30

Resources Table:

Seq	Resource	UOM	Basis	Rate or Amount	Usage	Inverse
10	DL-LBR1	HR	Item	1.5	1.5	1.5

MTL_RTG_ITEM_REVISIONS

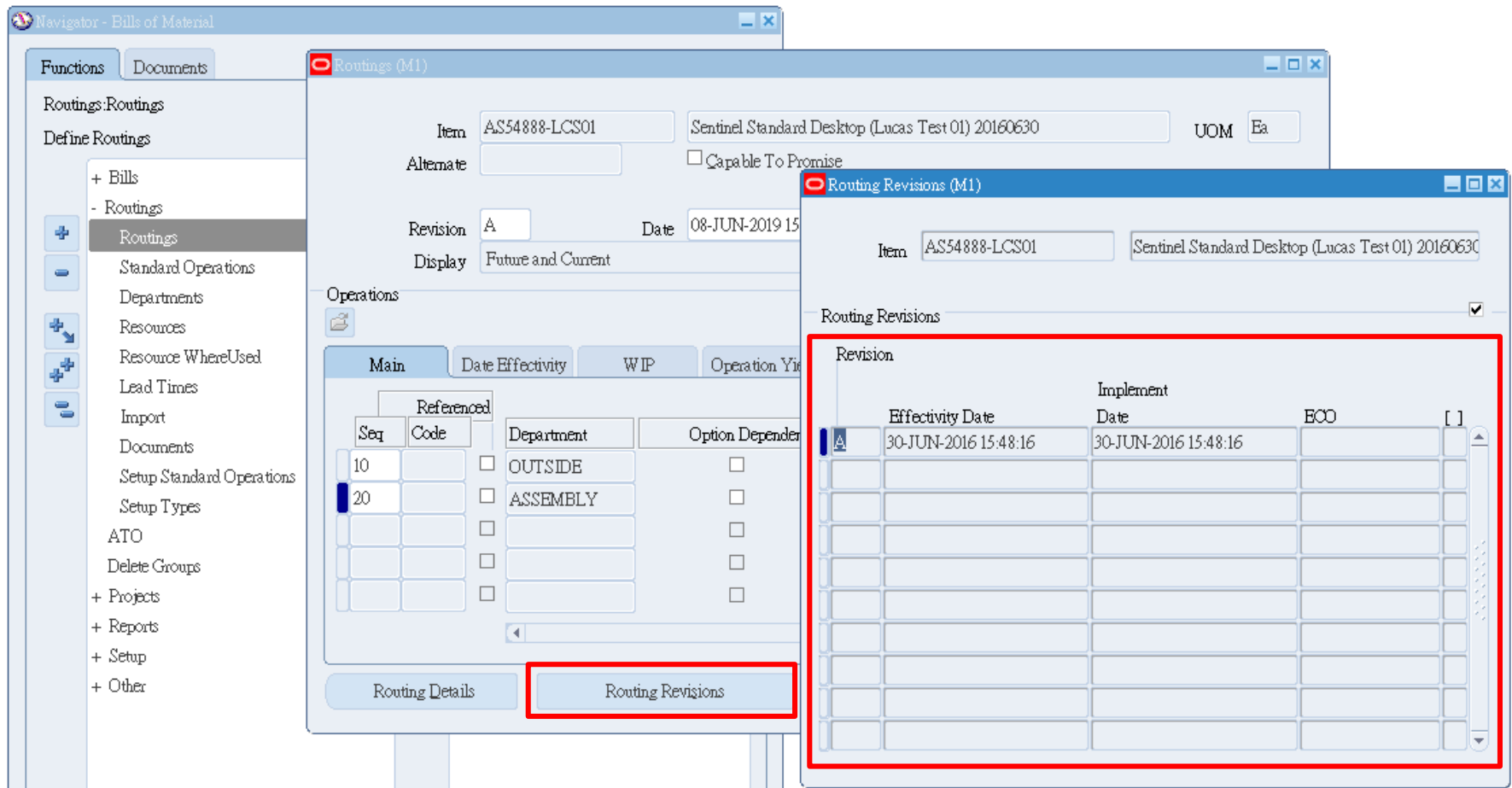
Routing 版本表

1. 記錄 Routing 的版本號碼與生效日期；

Key Columns	Description	必要
ORGANIZATION_ID	組織 ID	Y
INVENTORY_ITEM_ID	料號 ID	Y
PROCESS_REVISION	Routing 版本號碼	Y
EFFECTIVITY_DATE	版本生效日期	Y
CHANGE_NOTICE	ECO 號碼 (如果此筆版本資料是透過 ECO 加入，會加上此項資料)	
IMPLEMENTATION_DATE	實施日期 (ECO 的生效日期)	

MTL_RTG_ITEM_REVISIONS

Path: (N) BOM > Routings > Routings > (Button) Routing Revisions



Contents

- BOM Base Tables
- BOM Interfaces
- Routing Base Tables
- Routing Interfaces
- ECO Base Tables
- ECO Interfaces

Routing Interfaces

Table Name	Alias	Description
BOM_OP_ROUTINGS_INTERFACE	borti	Routing 表頭介面檔
BOM_OP_SEQUENCES_INTERFACE	bori	Routing 表身加工站明細介面檔
BOM_OP_RESOURCES_INTERFACE	borsi	Routing 表身加工站內資源明細介面檔
MTL_RTG_ITEM_REVS_INTERFACE	mriri	Routing 版本表介面檔

BOM_OP_ROUTINGS_INTERFACE

Routing 表頭介面檔

1. 要從外部匯入或修改 Routing 表頭資料時，將資料寫入此 table，再執行「Bill and Routing Interface」程式匯入；

Key Columns	Description	必要
BATCH_ID	匯入批次 ID	Y
ROUTING_SEQUENCE_ID	Routing 的 ID (從 BOM_OPERATIONAL_ROUTINGS_S 取值)	Y
ORGANIZATION_ID	組織 ID	二選一
ORGANIZATION_CODE	組織代碼	
ASSEMBLY_ITEM_ID	組裝料號 ID	二選一
ASSEMBLY_ITEM_NUMBER	組裝料號	
ROUTING_TYPE	M-Routing 或 E-Routing (1: Manufacturing, 2: Engineering)	Y
ALTERNATE_ROUTING_DESIGNATOR	主/替代名稱 (NULL 為主 Routing，有值時為替代 Routing)	
COMMON_ASSEMBLY_ITEM_ID	如果是共用 Routing，此欄為來源 Routing 的組裝料號 ID	二選一
COMMON_ITEM_NUMBER	如果是共用 Routing，此欄為來源 Routing 的組裝料號	
COMMON_ROUTING_SEQUENCE_ID	如果是共用 Routing，此欄為來源 Routing 的 ID； 如果不是，則與 Routing ID 相同	Y
IMPLEMENTATION_DATE	Routing 實施日期 (E-Routing 轉 M-Routing，研發轉量產)	
ROUTING_COMMENT	Routing Detail 裡面的註解文字	
COMPLETION_SUBINVENTORY	預設完工入庫庫房	
COMPLETION_LOCATOR_ID	預設完工入庫儲位 ID	

BOM_OP_ROUTINGS_INTERFACE

(續)

Key Columns	Description	必要
PROCESS_FLAG	處理狀態 (1: Awaiting validation , 2: Validation started, 3: Validation failed, 4: Validation succeeded, 5: Processing started, 6: Processing failed, 7: Processing succeeded)	Y
TRANSACTION_TYPE	要執行的動作 (CREATE, UPDATE, DELETE)	Y

BOM_OP_ROUTINGS_INTERFACE

補充說明：

1. 也可以直接 Call API **BOM_RTG_PUB.PROCESS_RTG** 直接傳入資料並執行匯入；

(1) 一次只能處理一個組裝料號；

(2) 使用以下參數直接傳入組裝料號、加工站、站內資源和版本資料：

p_rtg_header_rec	BOM_RTG_PUB.RTG_HEADER_REC_TYPE
p_rtg_revision_tbl	BOM_RTG_PUB.RTG_REVISION_TBL_TYPE
p_operation_tbl	BOM_RTG_PUB.OPERATION_TBL_TYPE
p_op_resource_tbl	BOM_RTG_PUB.OP_RESOURCE_TBL_TYPE

(3) 依照傳回值 x_returnStatus = FND_API.G_RET_STS_SUCCESS 判斷是否成功匯入；

(4) 如果匯入時有錯誤，可以使用以下方式取得錯誤訊息內容；

```
ERROR_HANDLER.GET_MESSAGE_LIST(x_message_list => l_error_table);

FOR i IN 1..l_error_table.COUNT LOOP
    DBMS_OUTPUT.PUT_LINE(to_char(i)||':'||l_error_table(i).entity_index||':'||l_error_table(i).table_name);
    DBMS_OUTPUT.PUT_LINE(to_char(i)||':'||l_error_table(i).message_text);
END LOOP;
```

BOM_OP_ROUTINGS_INTERFACE

Path: (N) BOM > Bills > Import Bills and Routings

The screenshot displays the 'Navigator - Manufacturing and Distribution Manager' application. The left sidebar shows a tree view with the following structure:

- Functions
 - Documents
 - Processes
 - Bills Of Materials: Bills: Import Bills and Routings
 - Import Bills and Routings (highlighted with a red box)

The main window shows the 'Submit Request (M1)' dialog box. The 'Name' field is highlighted with a red box and contains the text 'Bill and Routing Interface'. The 'Operating Unit' field is empty. The 'Parameters' field is empty. The 'Language' field is set to 'American English'. The 'At these Times...' section shows 'Run the Job' set to 'As Soon as Possible'. The 'Upon Completion...' section shows 'Save all Output Files' checked and 'Burst On' unchecked. The 'Layout' field is empty. The 'Notify' field is empty. The 'Print to' field is set to 'noprint'. The 'Help (Q)' button is visible.

The 'Parameters' dialog box is open, showing the following settings:

Parameter	Value
All Organizations	Yes
Import Routings	Yes
Import Bills of Material	Yes
Delete Processed Rows	No

The 'Batch Id' field is empty. The 'OK', 'Cancel', 'Clear', and 'Help' buttons are visible at the bottom.

BOM_OP_SEQUENCES_INTERFACE

Routing 表身加工站明細介面檔

1. 要從外部匯入或修改 Routing 表身加工站資料時，將資料寫入此 table，再執行「Bill and Routing Interface」程式匯入；

Key Columns	Description		必要
BATCH_ID	匯入批次 ID		Y
ROUTING_SEQUENCE_ID	Routing 的 ID	1. 有 ROUTING_SEQUENCE_ID 時，直接使用它定位要匯入資料的 Routing； 2. 沒有 ROUTING_SEQUENCE_ID 時，使用另外三項資料 (組織、組裝料號、主/替代名稱) 定位要匯入資料的 Routing；	
ORGANIZATION_ID	組織 ID		
ORGANIZATION_CODE	組織代碼		
ASSEMBLY_ITEM_ID	組裝料號 ID		
ASSEMBLY_ITEM_NUMBER	組裝料號		
ALTERNATE_ROUTING_DESIGNATOR	主/替代名稱	1. 新增加工站，OPERATION_SEQUENCE_ID 從 BOM_OPERATION_SEQUENCES_S 取值，並提供加工站編號、生效日期的值； 2. 變更或刪除加工站時，如果有指定 OPERATION_SEQUENCE_ID，直接使用它定位要變更或刪除的加工站記錄； 如果沒有，使用加工站編號、生效日期定位要變更或刪除的加工站記錄；	
OPERATION_SEQUENCE_ID	加工站資料的 ID		
OPERATION_SEQ_NUM	加工站編號		
EFFECTIVITY_DATE	生效日期		
DEPARTMENT_ID	部門 ID	二選一	
DEPARTMENT_CODE	部門代碼		
OPERATION_DESCRIPTION	此加工站的備註訊息		

BOM_OP_SEQUENCES_INTERFACE

(續)

Key Columns	Description	必要
DISABLE_DATE	失效日期	
COUNT_POINT_TYPE	是否為計數站 (Count Point) 和自動認列資源站 (Autocharge) 1: Count Point = Yes, Autocharge = Yes 2: Count Point = No, Autocharge = Yes 3: Count Point = No, Autocharge = No	Y
BACKFLUSH_FLAG	是否為扣料站 (是否要在本站觸發 Backflush) (1: Yes 2: No)	Y
IMPLEMENTATION_DATE	實施日期 (ECO 的生效日期)	
STANDARD_OPERATION_ID	標準作業站 ID	
OPERATION_CODE	標準作業站代碼	
REFERENCE_FLAG	是否完全參考標準作業站內容 (1: Yes, 2: No)	Y
RESOURCE_CODE1 ~ RESOURCE_CODE3	可以指定三個資源項目，在匯入時一起加到此加工站內； (可使用 RESOURCE_CODE 或 RESOURCE_ID)	
RESOURCE_ID1 ~ RESOURCE_ID3		
PROCESS_FLAG	處理狀態 (1: Awaiting validation , 2: Validation started, 3: Validation failed, 4: Validation succeeded, 5: Processing started, 6: Processing failed, 7: Processing succeeded)	Y
TRANSACTION_TYPE	要執行的動作 (CREATE, UPDATE, DELETE)	Y

BOM_OP_RESOURCES_INTERFACE

Routing 表身加工站內資源明細介面檔

1. 要從外部匯入或修改 Routing 表身加工站資源時，將資料寫入此 table，再執行「Bill and Routing Interface」程式匯入；

Key Columns	Description		必要
BATCH_ID	匯入批次 ID		Y
ROUTING_SEQUENCE_ID	Routing 的 ID		1. 有 ROUTING_SEQUENCE_ID 時，直接使用它定位要匯入資料的 Routing； 2. 沒有 ROUTING_SEQUENCE_ID 時，使用另外三項資料 (組織、組裝料號、主/替代名稱) 定位要匯入資料的 Routing；
ORGANIZATION_ID	組織 ID	二選一	
ORGANIZATION_CODE	組織代碼		
ASSEMBLY_ITEM_ID	組裝料號 ID	二選一	
ASSEMBLY_ITEM_NUMBER	組裝料號		
ALTERNATE_ROUTING_DESIGNATOR	主/替代名稱		
OPERATION_SEQUENCE_ID	加工站資料的 ID		1. 有指定 OPERATION_SEQUENCE_ID，使用它定位加工站記錄； 2. 如果沒有，使用加工站編號、生效日期定位加工站記錄；
OPERATION_SEQ_NUM	加工站編號		
EFFECTIVITY_DATE	生效日期		
RESOURCE_SEQ_NUM	資源號碼		
RESOURCE_ID	資源 ID		二選一
RESOURCE_CODE	資源代碼		

BOM_OP_RESOURCES_INTERFACE

(續)

Key Columns	Description	必要
SCHEDULE_FLAG	是否參與排程時間計算 (1: Yes, 2: No, 3: Prior, 4: Next)	Y
AUTOCHARGE_TYPE	資源認列方式 (1: WIP move 2: Manual 3: PO receipt 4: PO move)	Y
BASIS_TYPE	資源認列基礎 (1: By Item 2: By Lot)	Y
USAGE_RATE_OR_AMOUNT	資源項目單位用量	Y
STANDARD_RATE_FLAG	是否依照標準用量產生相關分錄	Y
ECO_NAME	ECO 號碼 (如果此筆資料是透過 ECO 加入或失效，會加上此項資料)	
ACD_TYPE	ECO 動作 (1: Add, 2: Change, 3: Disable)	
PROCESS_FLAG	處理狀態 (1: Awaiting validation , 2: Validation started, 3: Validation failed, 4: Validation succeeded, 5: Processing started, 6: Processing failed, 7: Processing succeeded)	Y
TRANSACTION_TYPE	要執行的動作 (CREATE, UPDATE, DELETE)	Y

MTL_RTG_ITEM_REVS_INTERFACE

Routing 版本表介面檔

1. 要從外部匯入或修改 Routing 版本時，將資料寫入此 table，再執行「Bill and Routing Interface」程式匯入；

Key Columns	Description	必要
BATCH_ID	匯入批次 ID	Y
ORGANIZATION_ID	組織 ID	二選一
ORGANIZATION_CODE	組織代碼	
INVENTORY_ITEM_ID	料號 ID	二選一
INVENTORY_ITEM_NUMBER	料號	
PROCESS_REVISION	版本號碼	Y
EFFECTIVITY_DATE	版本生效日期	Y
CHANGE_NOTICE	ECO 號碼 (如果此筆版本資料是透過 ECO 加入，會加上此項資料)	
IMPLEMENTATION_DATE	實施日期 (ECO 的生效日期)	
PROCESS_FLAG	處理狀態 (1: Awaiting validation, 2: Validation started, 3: Validation failed, 4: Validation succeeded, 5: Processing started, 6: Processing failed, 7: Processing succeeded)	Y
TRANSACTION_TYPE	要執行的動作 (CREATE, UPDATE, DELETE)	Y

Contents

- BOM Base Tables
- BOM Interfaces
- Routing Base Tables
- Routing Interfaces
- ECO Base Tables
- ECO Interfaces

ECO Base Tables

Table Name	Alias	Description
ENG_ENGINEERING_CHANGES	eec	工程變更單 (ECO) 單頭明細檔
ENG_REVISED_ITEMS	eri	工程變更單 (ECO) 單身母階料號明細檔
ENG_REVISED_COMPONENTS	erc	工程變更單 (ECO) 單身子階料號明細檔 (ECO 已生效後)
BOM_INVENTORY_COMPONENTS	bic	工程變更單 (ECO) 單身子階料號明細檔 (ECO 未生效時)
BOM_SUBSTITUTE_COMPONENTS	bsc	工程變更單 (ECO) 單身子階料號替代料明細
BOM_REFERENCE_DESIGNATORS	brd	工程變更單 (ECO) 單身子階料號插件位置明細
BOM_OPERATION_SEQUENCES	bos	工程變更單 (ECO) 單身 Routing 加工站明細
BOM_OPERATION_RESOURCES	bors	工程變更單 (ECO) 單身 Routing 加工站內資源明細
ENG_CHANGE_ORDER_REVISIONS	bcor	工程變更單 (ECO) 版本表

ENG_ENGINEERING_CHANGES

工程變更單 (ECO) 單頭明細檔

1.工程變更單 (ECO) 單頭明細資料，包含 ECO 單號、類別、簽核狀態等；

Key Columns	Description	必要
ORGANIZATION_ID	組織 ID	Y
CHANGE_NOTICE	ECO 號碼	Y
CHANGE_ID	ECO ID	Y
CHANGE_ORDER_TYPE_ID	ECO 類別 ID	Y
STATUS_TYPE	ECO 狀態 (1: Open, 2: Hold, 4: Scheduled, 5: Cancelled, 6: Implemented, 7: Released)	Y
REQUESTOR_ID	ECO 申請者 ID (Employee)	
RESPONSIBLE_ORGANIZATION_ID	ECO 部門 ID	
REASON_CODE	變更原因	
PRIORITY_CODE	緊急程度	
APPROVAL_LIST_ID	簽核名單 ID	
APPROVAL_STATUS_TYPE	ECO 簽核狀態 (1: Not submitted for approval, 2: Ready to approve, 3: Approval requested, 4: Rejected, 5: Approved, 6: No approval needed, 7: Processing error)	Y
DESCRIPTION	ECO 說明	
IMPLEMENTATION_DATE	ECO 正式生效日期	

ENG_ENGINEERING_CHANGES

Path: (N) ENG > ECOs > ECOs

The screenshot shows a software interface for managing Engineering Change Orders (ECOs). On the left is a 'Navigator - Engineering' pane with a tree view under 'ECO:ECO: Define Engineering Change Orders'. The tree includes 'ECOs', 'Mass Changes', 'Schedules', 'Delete', 'Documents', 'Notification', 'Notification Summary', 'Import', 'Prototypes', 'Projects', 'Reports', 'Setup', and 'Other'. The 'ECOs' folder is expanded, and the 'ECOs' sub-item is selected. The main window is titled 'Engineering Change Orders (M1)' and contains a form with the following fields:

ECO	ECO011		
Type	MCO	Manufacturing Change Order	
Creation Date	16-AUG-2004 16:28:44	Organization Hierarchy	
Status	In Progress		
Requestor	Williams, Steve		
ECO Department			
Reason	Quality	Quality Improvement	
Priority	Medium	Medium	
Approval List			
Approval Process			
Approval Status	Approved		
Project			
Task			[]

Below the form fields are two tabs: 'Description' (selected) and 'Cancellation Comments'. The 'Description' tab contains a text area with the text: 'Component swap due to supplier pricing issue'.

At the bottom of the window are five buttons: 'Submit', 'Transfer', 'Copy', 'ECO Revisions', and 'Revised Items'.

ENG_REVISIED_ITEMS

工程變更單 (ECO) 單身母階料號明細檔

1. 工程變更單 (ECO) 單身母階料號明細資料，包含料號、版本、生效日期等；

Key Columns	Description	必要
ORGANIZATION_ID	組織 ID	Y
CHANGE_NOTICE	ECO 號碼	Y
CHANGE_ID	ECO ID	Y
REVISED_ITEM_ID	母階料號 ID	Y
REVISED_ITEM_SEQUENCE_ID	此筆資料的 ID (從 ENG_REVISIED_ITEMS_S 取值)	Y
BILL_SEQUENCE_ID	BOM ID	Y
ROUTING_SEQUENCE_ID	Routing ID	Y
ALTERNATE_BOM_DESIGNATOR	主/替代名稱	
DISPOSITION_TYPE	物料處理方式	Y
STATUS_TYPE	此筆明細行的狀態	Y
MRP_ACTIVE	MRP 是否要考慮此張 ECO 對該母階料號 BOM 的變更事項 (1: Yes, 2: No)	Y
SCHEDULED_DATE	預計生效日期	Y
IMPLEMENTATION_DATE	此筆明細行的 ECO 正式生效日期	
EARLY_SCHEDULE_DATE	最早可生效日期	
DESCRIPTIVE_TEXT	此筆明細行的說明文字	

ENG_REVISIED_ITEMS

(續) (此頁內容都是與「移轉/複製到量產」相關的資料內容；如果不是移轉/複製，以下欄位全部空白)

Key Columns	Description	必要
TRANSFER_OR_COPY	移轉到量產，或複製到量產 (T: Transfer, C: Copy)	Y
TRANSFER_OR_COPY_ITEM	是否移轉/複製 料號 (1: Yes, 2: No)	Y
TRANSFER_OR_COPY_BILL	是否移轉/複製 BOM (1: Yes, 2: No)	Y
TRANSFER_OR_COPY_ROUTING	是否移轉/複製 Routing (1: Yes, 2: No)	Y
NEW_ITEM_REVISION	移轉/複製到量產後，使用新的 BOM 版本 (料號版本)	
NEW_ROUTING_REVISION	移轉/複製到量產後，使用新的 Routing 版本	
DESIGNATOR_SELECTION_TYPE	移轉/複製到量產時，要移轉/複製的主/替代 BOM 和 Routing (1: All, 2: Primary, 3: Specific)	Y
SELECTION_OPTION	移轉/複製到量產時，對於新舊資料的選擇方式 (1: All, 2: Current, 3: Future and Current)	Y
SELECTION_DATE	選擇新舊資料時的日期分界線	Y
COPY_TO_ITEM	複製到量產時，新的料號	
COPY_TO_ITEM_DESC	複製到量產時，新的料號品名	

ENG_REVISIED_ITEMS

Path: (N) ENG > ECOs > ECOs > (Button) Revised Items

The screenshot displays the 'Navigator - Engineering' application window. The main window is titled 'Engineering Change Order (M1)' and contains various fields for defining an ECO. The 'Revised Items' button at the bottom is highlighted with a red box. A secondary window, 'Revised Items (M1) - EC011', is also shown, containing a table of revised items. This window is also highlighted with a red box.

Engineering Change Order (M1) Fields:

- ECO: EC011
- Type: MCO Manufacturing Change Order
- Creation Date: 16-AUG-2004 16:28:44
- Status: In Progress
- Requestor: Williams, Steve
- ECO Department: [Empty]
- Reason: Quality Quality Improvement
- Priority: Medium Medium
- Approval List: [Empty]
- Approval Process: [Empty]
- Approval Status: Approved
- Project: [Empty]
- Task: [Empty]

Revised Items (M1) - EC011 Table:

Item	Alternate	Item Rev	Description	Routing Rev	Effective Date
V140001					16-AUG-2004 16:3

Buttons: Submit, Transfer, Copy, ECO Revisions, Revised Items, History, Revisions, Routing Revisions, Operations, Components.

ENG_REVISIED_ITEMS

Path: (N) ENG > ECOs > ECOs > (Button) Transfer

Navigator - Engineering

Functions Documents

Engineering Change Orders (M1)

Define Engineering Change Order

ECO: ECO11
Type: MCO Manufacturing Change Order
Creation Date: 16-AUG-2004 16:28:44
Status: In Progress
Requestor: Williams, Steve
Organization Hierarchy: []
ECO Department: []
Reason: Quality Quality Improvement
Priority: Medium Medium
Approval List: []
Approval Process: []
Approval Status: Approved
Project: []
Task: []

Description Cancellation Comments

Component swap due to supplier pricing issue

Submit Transfer Copy ECO Revisions Revised Items

Transfer Engineering Data

Schedule Revisions Alternates Selection Cancel Details

Transfer

Item	Bill	Routing	Status	Effective Date
AS54888-LCS04	<input checked="" type="checkbox"/>	<input type="checkbox"/>	In Progress	08-JUN-2019 21:00:03
	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>		

Item Description: Sentinel Standard Desktop (Lucas Test 04) 20180115

History

ENG_REVISIED_ITEMS

Path: (N) ENG > ECOs > ECOs > (Button) Copy

Navigator - Engineering

Functions Documents

Engineering Change Orders (M1)

BOOs:BOOs

Define Engineering Change

BOOs

Mass Changes

Schedules

Delete

Documents

Notification

Notification Sum

Import

+ Prototypes

+ Projects

+ Reports

+ Setup

+ Other

BOO: E0011

Type: MCO Manufacturing Change Order

Creation Date: 16-AUG-2004 16:28:44

Status: In Progress

Requestor: Williams, Steve

BOO Department:

Reason: Quality Quality Improvement

Priority: Medium Medium

Approval List:

Approval Process:

Approval Status: Approved

Project:

Task:

Description: Cancellation Comments

Component swap due to supplier pricing issue

Submit Transfer **Copy** BOO Revisions Revised Items

Copy Engineering Data

Schedule Revisions Alternates Selection Manufacturing Item Cancel Details

Copy

Item	Bill	Routing	Status	Effective Date
Item			In Progress	08-JUN-2019 22:16:30

Item Description: Sentinel Standard Desktop (Lucas Test 04) 20180115

History

ENG_REVISIED_COMPONENTS

工程變更單 (ECO) 單身子階料號明細檔 (ECO 已生效後)

1. 工程變更單 (ECO) 單身子階料號明細資料，包含料號、用量等；
2. ECO 尚未生效時，子階資料只記錄於 BOM_INVENTORY_COMPONENTS，ECO 生效後才複製到此 table 裡面；
3. 此 table 欄位幾乎與 BOM_INVENTORY_COMPONENTS 都相同，以下只特別列出與 ENG_REVISIED_ITEMS 連結的資料；

Key Columns	Description	必要
CHANGE_NOTICE	ECO 號碼	Y
REVISED_ITEM_SEQUENCE_ID	此筆資料與 ENG_REVISIED_ITEMS 連結的方式	Y
IMPLEMENTATION_DATE	實施日期 (ECO 的生效日期)	

BOM_INVENTORY_COMPONENTS

工程變更單 (ECO) 單身子階料號明細檔 (ECO 未生效時)

1. 工程變更單 (ECO) 單身子階料號明細資料，包含料號、用量等；
2. ECO 尚未生效時，子階資料記錄於此 table 裡面，ECO 生效後才複製到 ENG_REVISED_COMPONENTS 裡面；
3. 此 table 欄位在前面 Page 8~15 已有說明，此處不再重複，以下只特別列出與 ECO 相關的資料；

Key Columns	Description	必要
CHANGE_NOTICE	ECO 號碼	Y
REVISED_ITEM_SEQUENCE_ID	此筆資料與 ENG_REVISED_ITEMS 連結的方式	Y
IMPLEMENTATION_DATE	實施日期 (ECO 的生效日期；ECO 未生效時，此欄位為空)	
ACD_TYPE	ECO 動作 (1: Add, 2: Change, 3: Disable)	Y

BOM_SUBSTITUTE_COMPONENTS

BOM_REFERENCE_DESIGNATORS

工程變更單 (ECO) 單身子階料號替代料明細
工程變更單 (ECO) 單身子階料號插件位置明細

1. 以上二個 table 欄位在前面 Page 16~19 已有說明，此處不再重複；

BOM_OPERATION_SEQUENCES

BOM_OPERATION_RESOURCES

工程變更單 (ECO) 單身 Routing 加工站明細
工程變更單 (ECO) 單身 Routing 加工站內資源明細

1. 以上二個 table 欄位在前面 Page 43~51 已有說明，此處不再重複；

ENG_CHANGE_ORDER_REVISIONS

工程變更單 (ECO) 版本表

1. 工程變更單 (ECO) 版本表記錄於此 table 中；

Key Columns	Description	必要
ORGANIZATION_ID	組織 ID	Y
CHANGE_NOTICE	ECO 號碼	Y
REVISION	版本號碼	Y
REVISION_ID	版本 ID	Y
COMMENTS	版本備註文字	

ENG_CHANGE_ORDER_REVISIONS

Path: (N) ENG > ECOs > ECOs > (Button) ECO Revisions

The screenshot shows the 'Engineering Change Orders (M1)' window. The left sidebar contains a tree view with 'ECOs:ECOs' expanded, showing 'Define Engineering Change Order' and 'ECOs'. The 'ECOs' folder is selected, and the 'ECO Revisions' button is highlighted. The main window displays the 'ECO Revisions (M1) - ECO11' sub-window. This sub-window contains a table with the following data:

Revision	Comments	Entry Date
1.0	TEST	08-JUN-2019 21:01:35

The 'ECO Revisions' button at the bottom of the window is highlighted with a red box.

Contents

- BOM Base Tables
- BOM Interfaces
- Routing Base Tables
- Routing Interfaces
- ECO Base Tables
- ECO Interfaces

ECO Interfaces

Table Name	Alias	Description
ENG_ENG_CHANGES_INTERFACE	eeci	工程變更單單頭介面檔
ENG_REVISIED_ITEMS_INTERFACE	erii	工程變更單單身母階料號介面檔
BOM_INVENTORY_COMPS_INTERFACE	bici	工程變更單單身子階明細介面檔
BOM_SUB_COMPS_INTERFACE	bsci	工程變更單單身子階替代料明細介面檔
BOM_REF_DESGS_INTERFACE	brdi	工程變更單單身子階插件位置明細介面檔
ENG_ECO_REVISIONS_INTERFACE	eeri	工程變更單版本介面檔

- ※ 備註：1. 透過 ECO Interfaces 只能匯入與 BOM 有關的 ECO 內容，無法匯入與 Routing 有關的 ECO 內容；
2. 與 Routing 有關的 ECO 內容，只能自行寫入 BOM_OPERATION_SEQUENCES 和 BOM_OPERATION_RESOURCES，並連結到特定 ECO 的 Revised Item；

ENG_ENG_CHANGES_INTERFACE

工程變更單單頭介面檔

1. 要從外部匯入或修改工程變更單單頭資料時，將資料寫入此 table，再執行「ECO Open Interface」程式匯入；

Key Columns	Description		必要
ORGANIZATION_ID	組織 ID		二選一
ORGANIZATION_CODE	組織代碼		
CHANGE_NOTICE	ECO 號碼		二選一
CHANGE_ID	ECO ID		
CHANGE_ORDER_TYPE_ID	ECO 類別 ID		二選一
CHANGE_ORDER_TYPE	ECO 類別		
STATUS_TYPE	ECO 狀態 (1: Open, 2: Hold, 4: Scheduled, 5: Cancelled, 6: Implemented, 7: Released)		Y
REQUESTOR_ID	ECO 申請者 ID (Employee)		三選一
REQUESTOR_USER_NAME	ECO 申請者 (User Name)		
EMPLOYEE_NUMBER	ECO 申請者 (Employee)		
RESPONSIBLE_ORGANIZATION_ID	ECO 部門 ID		二選一
RESPONSIBLE_ORG_CODE	ECO 部門組織代碼	使用這二個欄位 找出 ECO 部門 ID	
ECO_DEPARTMENT_NAME	ECO 部門代碼		
REASON_CODE	變更原因		
PRIORITY_CODE	緊急程度		

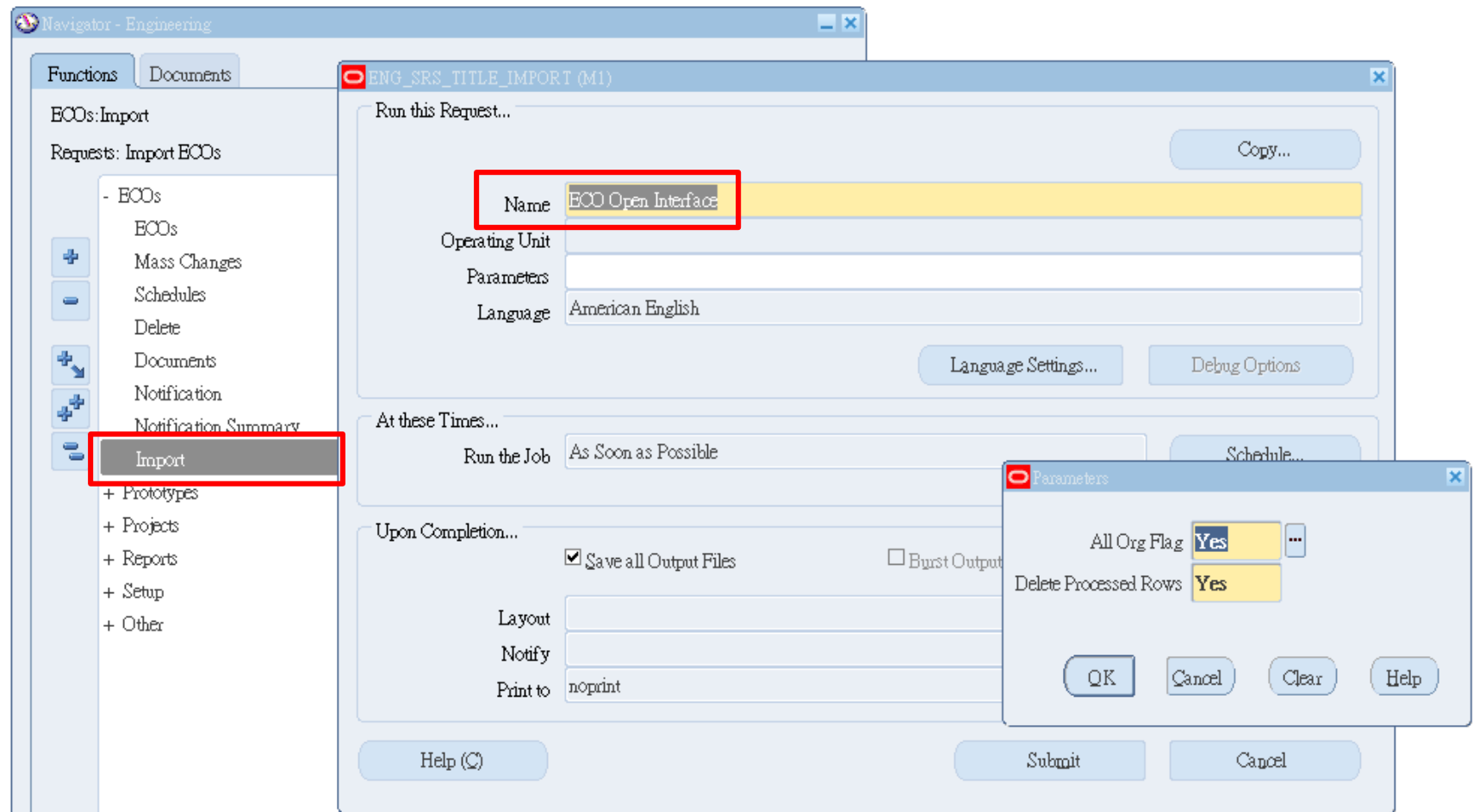
ENG_ENG_CHANGES_INTERFACE

(續)

Key Columns	Description	必要
APPROVAL_LIST_ID	簽核名單 ID	
APPROVAL_STATUS_TYPE	ECO 簽核狀態 (1: Not submitted for approval, 2: Ready to approve, 3: Approval requested, 4: Rejected, 5: Approved, 6: No approval needed, 7: Processing error)	Y
DESCRIPTION	ECO 說明	
IMPLEMENTATION_DATE	ECO 正式生效日期	
PROCESS_FLAG	處理狀態 (1: Awaiting validation , 2: Validation started, 3: Validation failed, 4: Validation succeeded, 5: Processing started, 6: Processing failed, 7: Processing succeeded)	Y
TRANSACTION_TYPE	要執行的動作 (CREATE, UPDATE, DELETE)	Y

ENG_ENG_CHANGES_INTERFACE

Path: (N) ENG > ECOs > Import



ENG_REVISIED_ITEMS_INTERFACE

工程變更單單身母階料號介面檔

1. 要從外部匯入或修改工程變更單單身母階料號資料時，將資料寫入此 table，再執行「ECO Open Interface」程式匯入；

Key Columns	Description	必要
ORGANIZATION_ID	組織 ID	二選一
ORGANIZATION_CODE	組織代碼	
CHANGE_NOTICE	ECO 號碼	二選一
CHANGE_ID	ECO ID	
REVISED_ITEM_ID	母階料號 ID	二選一
REVISED_ITEM_NUMBER	母階料號	
REVISED_ITEM_SEQUENCE_ID	特定 ECO 上面母階料號記錄的 ID	Y
BILL_SEQUENCE_ID	BOM ID	Y
ROUTING_SEQUENCE_ID	Routing ID	Y
ALTERNATE_BOM_DESIGNATOR	主/替代名稱	
DISPOSITION_TYPE	物料處理方式	Y
STATUS_TYPE	此筆明細行的狀態	Y
MRP_ACTIVE	MRP 是否要考慮此張 ECO 對該母階料號 BOM 的變更事項 (1: Yes, 2: No)	Y
SCHEDULED_DATE	預計生效日期	Y
IMPLEMENTATION_DATE	此筆明細行的 ECO 正式生效日期	

ENG_REVISIED_ITEMS_INTERFACE

(續)

[illegible]

BOM_INVENTORY_COMPS_INTERFACE

工程變更單單身子階明細介面檔

1. 要從外部匯入或修改工程變更單身子階明細資料時，將資料寫入此 table，再執行「ECO Open Interface」程式匯入；
2. 此 table 欄位在前面 Page 29~31 已有說明，此處不再重複，以下只特別列出與 ECO 相關的資料；

Key Columns	Description	必要
CHANGE_NOTICE	ECO 號碼	二選一
CHANGE_ID	ECO ID	
REVISED_ITEM_SEQUENCE_ID	此筆資料與 ENG_REVISED_ITEMS 連結的方式	Y
REVISED_ITEM_NUMBER	母階料號	Y
ACD_TYPE	ECO 動作 (1: Add, 2: Change, 3: Disable)	Y

BOM_SUB_COMPS_INTERFACE

工程變更單單身子階替代料明細介面檔

1. 要從外部匯入或修改工程變更單身子階替代料資料時，將資料寫入此 table，再執行「ECO Open Interface」程式匯入；
2. 此 table 欄位在前面 Page 32~33 已有說明，此處不再重複，以下只特別列出與 ECO 相關的資料；

Key Columns	Description	必要
CHANGE_NOTICE	ECO 號碼	二選一
CHANGE_ID	ECO ID	
ACD_TYPE	ECO 動作 (1: Add, 2: Change, 3: Disable)	Y

BOM_REF_DESGS_INTERFACE

工程變更單單身子階插件位置明細介面檔

1. 要從外部匯入或修改工程變更單身子階插件位置資料時，將資料寫入此 table，再執行「ECO Open Interface」程式匯入；
2. 此 table 欄位在前面 Page 34~35 已有說明，此處不再重複，以下只特別列出與 ECO 相關的資料；

Key Columns	Description	必要
CHANGE_NOTICE	ECO 號碼	二選一
CHANGE_ID	ECO ID	
ACD_TYPE	ECO 動作 (1: Add, 2: Change, 3: Disable)	Y

ENG_ECO_REVISIONS_INTERFACE

工程變更單版本介面檔

1. 要從外部匯入或修改工程變更版本資料時，將資料寫入此 table，再執行「ECO Open Interface」程式匯入；

Key Columns	Description	必要
ORGANIZATION_ID	組織 ID	二選一
ORGANIZATION_CODE	組織代碼	
CHANGE_NOTICE	ECO 號碼	二選一
CHANGE_ID	ECO ID	
REVISION	版本號碼	Y
REVISION_ID	版本 ID	Y
COMMENTS	版本備註文字	
PROCESS_FLAG	處理狀態 (1: Awaiting validation, 2: Validation started, 3: Validation failed, 4: Validation succeeded, 5: Processing started, 6: Processing failed, 7: Processing succeeded)	Y
TRANSACTION_TYPE	要執行的動作 (CREATE, UPDATE, DELETE)	Y