


C0338 - OUT I/F to provide detail stock in Storage Bin - SAP S/4

SAP Functional Specification Document Interface

Object ID	C0338 <div> S4VRICEFW-222: C0338 - OUT</div> <div>I/F to provide detail stock in Storage Bin - SAP S/4</div>
Object Type	Interface
System	<input checked="" type="checkbox"/> SAP <input type="checkbox"/> Satellite App: {Application Name}
Object Title	OUT I/F to provide detail stock in Storage Bin
Stream Area	<div><input type="checkbox"/> Sales & Promotion</div> <div><input type="checkbox"/> Distribution</div> <div><input checked="" type="checkbox"/> Warehouse</div> <div><input type="checkbox"/> Procurement</div> <div><input type="checkbox"/> Production Planning</div> <div><input type="checkbox"/> Quality Management</div> <div><input type="checkbox"/> Plant Maintenance</div> <div><input type="checkbox"/> Finance Accounting</div> <div><input type="checkbox"/> Finance Controlling</div> <div><input type="checkbox"/> Project System</div> <div><input type="checkbox"/> Success Factor</div> <div><input type="checkbox"/> Master Data Governance</div>
Complexity	<div><input type="checkbox"/> Low</div> <div><input checked="" type="checkbox"/> Medium</div> <div><input type="checkbox"/> High</div> <div><input type="checkbox"/> Very High</div>

Guidelines for Writing Form Functional Specification

1. The content in **BLUE** is the synopsis of what the section of FSD should contain. Please remove the content in blue before updating the respective sections.
2. Update “Table of contents” section before base lining/delivering/updating of the Functional Specification Design.
3. Section 1 – “Document History” is mandatory to log initial and further changes to the Functional Specification Design. Please highlight in different color if, critical content pertaining to a Change Request is being updated.
4. Enable Track changes if to modify Baseline Functional Specification Design.
5. Process flow diagram should be mentioned in detail.
6. Sections 6 should capture all possible business test cases. This will become the base for technical unit testing (TUT) and functional unit testing (FUT).
7. Please remove all sample texts and sample attachments after writing the FS. They are only indicative in nature.

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1 Document Control Information

1.1 Document Edit History

Version	Date	Additions/Modifications	Prepared/Revised by
Version 0.1	16-Apr-2025	Initial Creation	@Virnando Tan Wijaya
Version 1.0	21-Apr-2025	Initial Submission	@Virnando Tan Wijaya
Version 2.0	8-May-2025	Revision Need Additional Return Value	@Virnando Tan Wijaya
Version 2.1	15-May-2025	Add Link API Dev and Change parameter according with developed	@Virnando Tan Wijaya
Version 3.0	23-May-2025	Add read stock from HU that is open in storage bin	@Virnando Tan Wijaya
Version 4.0	04-June-2025	Added new API for stock in storage bin in case and pack unit	@Virnando Tan Wijaya
Version 4.1	16-June-2025	Add new export value Expiration Date	@Virnando Tan Wijaya
Version 4.2	16-June-2025	Add new export value TotalHU and If WM unit is blank then pack unit equal to Base Unit	@Virnando Tan Wijaya
Version 5.0	22-July-2025	Add new export value for prod hier level 1, return document ref	@Virnando Tan Wijaya

		no, new import parameter field (batch, ref doc, plant and storage location)	
Version 5.1	29-July-2025	New API for Stock IM Level	@Virnando Tan Wijaya
Version 5.2	05-Aug-2025	Revise Logic API for Stock IM Level	@Virnando Tan Wijaya

1.2 Document Review and Sign Off

The individuals listed here will be required to review and approve this document.

Reviewed By:

The “Reviewed By” signature indicates the individual(s) who reviewed this document for content and clarity, and to the best of their knowledge, this document satisfactorily achieves the purpose and scope defined herein:

	Name	Title/Role <Designation, Department>
Reviewed By	@Tjoe Susan	IT Lead
Signature		Date: May 15, 2025

Approved By:

The “Approved By” signature indicates the individual(s) who approved this document for content and clarity, and to the best of their knowledge, this document complies with corporate policies and procedures:

	Name	Title/Role <Designation, Department>
Approved By	@Fahrizal Desta Iryono	BP Lead
Signature		Date: May 15, 2025

2 Functional Specification Details

2.1 Impacted Sub-Process

C-020-080 Stocks Transfer within Warehouse (Bin to Bin)

- C-020-080-020 Perform bin to bin transfer

2.2 Assumption

This development object for providing stock inventory from SAP to satellite apps, hence providing visibility before performing stock movement without the need to open SAP.

2.3 Risks

If this development object is not created, there will be no data provided for available stock in a bin via the satellite apps.

3 Operational Considerations

The following sections outline the requirements for the interface object. The requirements, business rules and design specifications are combined in this document to provide a comprehensive view of the functional design.

3.1 Data Source

SAP

3.2 Trigger

Trigger from Satellite Apps

3.3 Processing Options

<Specify the processing mode, type, and frequency>

Inbound/Outbound

- ☐ Inbound
☒ Outbound

Processing Mode

- ☐ Batch
☒ Real Time
☐ Near Real Time

Processing Type

- ☒ Synchronous
☐ Asynchronous

Require Middleware

- ☐ Yes
☒ No

Interface Type

- ☐ RFC
☐ IDOC
☐ Direct Database
☒ API
☐ File
☐ CDC (Change Data Capture)
☐ Other (if other, describe here) _____

Frequency

- ☐ Annually
☐ Quarterly
☐ Monthly
☐ Weekly
☐ Daily
☒ On Demand
☐ Other (If other, describe here) _____

3.4 Dependencies

3.4.1 Environment / Configuration

<List the configuration work that must be considered during the development of this object and that needs to be in place before this requirement can be tested. This section should answer the question “What are the configurations needed for this object?”>

3.4.2 Development Dependencies

Not applicable

3.4.3 Run / Execution Dependencies

Not applicable

3.5 Expected System Load

How often will the development object be executed?

Average Load (Daily)

4 Functional Design Considerations

<Provide details about the interface itself. This section should explain what the exact details of the interface>

4.1 Interface Details

API Overview

- **Base URL:** (Insert By Developer)
- **Authentication:** Bearer Token
- **Response Format:** JSON
- **Error Handling:** Standard HTTP status codes with descriptive error messages

	Function & API per Process	Overview Step by Step	Remark / Validation / Logic										
1	GET List of stock in Storage Bin (API)	<div>1. Get list of stock material<ul style="list-style-type: none">a. Get stockb. Count material id in each storage bin</div> <div>2. Get quantity in WM Unit (quantity in warehouse unit measurement)<ul style="list-style-type: none">a. Get WM Unit of Measureb. Convert Quantity to WM Unit</div> <div>3. Get Pack Unit (decimal quantity of</div>	<div><div>1 // 0. Get Token</div><div>2 Base URL: (https://vhpyadwsai01.sap.wingscorp.com:44300/sap/opu/odata4/sap/zwmapi_list_stock_ewm_o4/srvd_a2x/sap/zwm_list_stock_ewm/0001/ListStockEWM/com.sap.gateway.srvd_a2x.zwm_list_stock_ewm.v0001.getListStock(EWMWarehouse='FB01',EWMStorageType='',EWMStorageBin='',EWMStorageSection=''))?sap-client=110)</div><div>3 Authentication: Bearer Token</div><div>4 Response Format: JSON</div><div>5 Error Handling: Standard HTTP status codes with descriptive error messages</div></div> <div><div>1 Function SAP Z_FM_EWM_GET_LIST_STOCK</div><div>2 Notes*</div><div>3 flag HU:</div><div>4 'A' -> All (With & Without HU)</div><div>5 'Y' -> With HU only</div><div>6 'N' -> Without HU only</div></div> <div>Example Data:</div> <div><div>1 // Client SAP S/4 DWS 110</div><div>2</div><div>3 EWMWarehouse='FA01'</div><div>4 EWMStorageType='9010'</div><div>5 EWMStorageBin=''</div><div>6 EWMStorageSection=''</div></div> <div><table><tr><td>API</td><td></td><td></td><td></td><td></td></tr><tr><td>Paramete</td><td></td><td></td><td></td><td></td></tr></table></div>	API					Paramete				
API													
Paramete													

warehouse unit
measurement
in base unit)
a. Convert WM
Unit in point
2 to Base
Unit
b. Calculate
Pack unit

r's Import Parameter				
Field Name	Descri ption	Type	Mandatory	Sample Data
EWMWare houseNu mber	Wareho use Numbe r	CHA R(4)	Mandatory (If EWMPlant and EWMStorag eLocation is Empty/Blan k)	FA01
EWMPlant	Plant	CHA R(4)	Mandatory (If EWMWareh ouseNumb er is inputted, this is ignored)	1AA0
EWMStora geLocatio n	Storage Locatio n	CHA R(4)	Mandatory (If EWMWareh ouseNumb er is inputted, this is ignored)	A001
EWMStora geType	Storage Type	CHA R(4)	Optional	SRP1
EWMStora geBin	Storage Bin	CHA R(18)	Optional	SLP5-0002

EWMStorageSection	Storage Section	CHAR(4)	Optional	0001
EWMProduct	Product	CHAR(40)	Optional	1700030
EWMBatch	Batch	CHAR(10)	Optional	20230502
EWMDocumentRefType	Document Reference Type	CHAR(3)	Mandatory (IF EWMDocumentNumber is inputted, this is ignored)	PJS
EWMDocumentNumber	Document Number	CHAR(35)	Optional	C/ASTA2432

```

1 // 0. Determine Warehouse Number
2   0.a. Get ERP Warehouse Number
3       SELECT LGNUM
4       FROM T320
5       WHERE
6           WERKS = [Import Parameter-EWMPlant]
7           LGORT = [Import Parameter-
EWMStorageLocation]
8
9   0.b. Get EWM Warehouse Number
10      SELECT
11          LGNUM
12      FROM
13          /SCWM/TMAPWHNUM
14      WHERE
15          WHNUMERP = [LGNUM Point 0.a]
16
17   0.c Validation
18      If 0.b Not Found Then Return Error Message
19      'Warehouse Number Not Found'
20      Else
21          Assign EMMWarehouseNumber = [Point 0.b]

```

```

22 // 1. Get list of stock material
23     1.a. Get stock (Non HU)
24         SELECT
25             IP.PRODUCT,
26             IPD.PRODUCTNAME,
27             IP.PRODUCTOLDID,
28             IPH.PRODUCTHIERARCHYTEXT,
29             IEA.EWMSTORAGETYPE,
30             IEA.EWMSTORAGEBIN,
31             IES.EWMSTORAGESECTION,
32             IES.EWMSTORAGEBINTYPE,
33             IEA.BATCH,
34             IEP.STOCKDOCUMENTCATEGORY,
35             IEP.EXTERNALSTOCKDOCUMENTNUMBER,
36             IEA.EWMSTOCKTYPE
37             IEA.AVAILABLEEWMSTOCKQTY,
38             IEA.EWMSTOCKQUANTITYBASEUNIT,
39             IEP.EWMSTOCKQUANTITYINBASEUNIT,
40             IEP.EWMSTOCKQUANTITYBASEUNIT,
41             IEA.HANDLINGUNITNUMBER
42             IEA.SHELFLIFEEXPIRATIONDATE
43         FROM
44             I_EWM_AVAILABLESTOCK IEA JOIN
45             I_EWM_STORAGEBINCUBE IES ON
46             IEA.EWMWAREHOUSE = IES.EWMWAREHOUSE
47             AND IEA.EWMSTORAGEBIN ON
48             IES.EWMSTORAGEBIN JOIN
49             I_EWM_PHYSSTOCKPROD IEP ON
50             IEP.PARENTHANDLINGUNITUUID =
51             IEA.PARENTHANDLINGUNITUUID
52             AND IEP.STOCKITEMUUID =
53             IEA.STOCKITEMUUID JOIN
54             I_PRODUCT IP ON IP.PRODUCT =
55             IEP.PRODUCT JOIN
56             I_PRODUCTDESCRIPTION IPD ON
57             IPD.PRODUCT = IP.PRODUCT JOIN
58             I_PRODUCTHIERARCHYTEXT IPH ON
59             LEFT(1,IP.PRODUCTHIERARCHY) =
60             IPH.PRODUCTHIERARCHY
61         WHERE
62             IEA.EWMWAREHOUSE = [Import
63             Parameter-EWMWarehouseNumber]
64             IEA.EWMSTORAGETYPE = [Import
65             Parameter-EWMStorageType]
66             IEA.EWMSTORAGEBIN = [Import
67             Parameter-EWMStorageBin]
68             IES.EWMSTORAGESECTION = [Import
69             Parameter-EWMStorageSection]
70             IP.PRODUCT = [Import Parameter-
71             EWMProduct]
72             IEA.BATCH = [Import Parameter-
73             EWMBatch]
74             IEP.STOCKDOCUMENTCATEGORY = [Import
75             Parameter-EWMDocumentRefType]
76             IEP.EXTERNALSTOCKDOCUMENTNUMBER =
77             [Import Parameter-EWMDocumentNumber]
78             IPD.LANGUAGE = [System Language]
79
80     1.a.i. If IEP.STOCKDOCUMENTCATEGORY =
81     'PJS' Then

```

```

64          Convert with
CONVERSION_EXIT_PSPNR_OUTPUT
65          INPUT:
[IEP.EXTERNALSTOCKDOCUMENTNUMBER]
66
67      1.b. Get stock (HU Open WT) // this will be
considered as physical stock
68      1.b.ii. Get physical stock HU
69      SELECT
70          00.LGNUM
71          00.VLTYP
72          00.VLPLA
73          00.VLBER
74          00.NLENR
75          LAGP.LPTYP
76          00.SGUID_HU
77          FROM /LIME/NQUAN LN JOIN
78              /SCWM/ORDIM_0 00 ON
LN.GUID_PARENT = 00.SGUID_HU JOIN
79              /SCWM/LAGP LAGP ON
LAGP.LGPLA = 00.VLPLA AND LAGP.LGNUM = 00.LGNUM
80      WHERE
81          00.VLPLA = [Import
Parameter-EWMStorageBin] AND
82          00.MATID = 'BLANK' / NULL
AND
83          00.LGNUM = [Import
Parameter-EWMWarehouseNumber]
84
85      1.b.iii. Get list of material for the
HU
86      CALL FUNCTION
/SCWM/HU_READ_MULT
87      IMPORT PARAMETER:
88      IT_GUID_HU = [Point
1.b.ii-SGUID_HU]
89      EXPORT PARAMETER:
90      ET_HUITM =
91      MATID
92      QUAN
93      MEINS
94      BATCHID
95      CAT
96      If BATCHID IS NOT EMPTY THEN
97      SELECT CHARG
98      FROM I_BATCH
99      WHERE
BATCHEXTWHSEMGMTINTERNALID = [Export Parameter-
BATCHID]
100
101      1.b.iv. Get the material information
102      SELECT
103          IP.PRODUCT,
104          IPD.PRODUCTNAME,
105          IP.PRODUCTOLDID,
106          FROM I_PRODUCT IP JOIN
107              I_PRODUCTDESCRIPTION IPD ON
IPD.PRODUCT = IP.PRODUCT
108      WHERE

```

```

109          IP.PRODUCT = [Export
Parameter-MATID]
110          IPD.LANGUAGE = [System
Language]
111
112      1.c. Count material id in each storage bin
(Only Available Stock for Warehouse Task
Creation)
113          SELECT
114              IEA.EWMSTORAGEBIN,
115              COUNT DISTINCT (Material, Batch)
116          FROM
117              I_EWM_AvailableStock IEA JOIN
118              I_EWM_STORAGEBIN_CUBE IES ON
IEA.EWMWAREHOUSE = IES.EWMWAREHOUSE
119              AND IEA.EWMSTORAGEBIN ON
IES.EWMSTORAGEBIN
120          WHERE
121              IEA.EWMWAREHOUSE = [Import
Parameter-EWMWarehouseNumber]
122              IEA.EWMSTORAGETYPE = [Import
Parameter-EWMStorageType]
123              IEA.EWMSTORAGEBIN = [Import
Parameter-EWMStorageBin]
124              IES.EWMSTORAGESECTION = [Import
Parameter-EWMStorageSection]
125
126      // 2. Get quantity in WM Unit (quantity in
warehouse unit measurement)
127          2.a. Get WM Unit of Measure
128          2.a.i. Convert Material ID GUID16 to
GUID22 with FM /SCMB/MDL_GUID_CONVERT
129              Import IV_GUID16 =
[IEA.PRODUCTUOID]
130              Export EV_GUID22
131          2.a.ii. Get SCU GUID (This is equal to
warehouse number in ERP / MLGT-LGNUM) as EWM is
encrypted
132              SELECT SCUGUID
133              FROM /SCWM/T300_MD
134              WHERE LGNUM = [Import
Parameter-EWMWarehouseNumber]
135          2.a.iii. Get WM Unit of Measure
136              SELECT PUOM_WH
137              FROM /SAPAPO/MATLWH
138              WHERE MATID =
[Product/Material ID/GUID22] AND SCUGUID =
[SCUGUID]
139              -----
140              IF PUOM_WH NOT FOUND
141              THEN WM Unit set as Blank
142              ELSE
143                  Go to next step
144          2.b. Convert Quantity to WM Unit for
Available Stock
145              Call Function MD_CONVERT_MATERIAL_UNIT
146              I_MATNR = IP.PRODUCT
147              I_IN_ME =
IEA.EWMSTOCKQUANTITYBASEUNIT
148              I_OUT_ME = [Point 2.a.iii-WM Unit]

```

```

149         I_MERGE = IEA.AVAILABLEEWMSTOCKQTY
150     2.c. Convert Quantity to WM Unit for
Physical Stock
151         Call Function MD_CONVERT_MATERIAL_UNIT
152         I_MATNR = IP.PRODUCT
153         I_IN_ME =
IEP.EWMSTOCKQUANTITYBASEUNIT
154         I_OUT_ME = [Point 2.a.iii-WM Unit]
155         I_MERGE =
IEP.EWMSTOCKQUANTITYINBASEUNIT
156
157 // 3. Get Pack Unit (remaining quantity of
warehouse unit measurement in base unit)
158     3.a. Convert WM Unit in point 2 to Base Unit
for Available Stock
159         Call Function MD_CONVERT_MATERIAL_UNIT
160         I_MATNR = IP.PRODUCT
161         I_IN_ME = [Point 2.a.iii-WM Unit]
162         I_OUT_ME =
IEA.EWMSTOCKQUANTITYBASEUNIT
163         I_MERGE = [Point 2.b-E_MERGE (Remove
decimal)]
164     3.b. Calculate Pack unit for Available Stock
Pack Quantity =
IEA.AVAILABLEEWMSTOCKQTY - [Point 3.a-E_MERGE]
166         Pack Unit =
IEA.EWMSTOCKQUANTITYBASEUNIT
167
168     3.c. Convert WM Unit in point 2 to Base Unit
for Physical Stock
169         Call Function MD_CONVERT_MATERIAL_UNIT
170         I_MATNR = IP.PRODUCT
171         I_IN_ME = [Point 2.a.iii-WM Unit]
172         I_OUT_ME =
IEP.EWMSTOCKQUANTITYBASEUNIT
173         I_MERGE = [Point 2.c-E_MERGE (Remove
decimal)]
174     3.d. Calculate Pack unit for Physical Stock
Pack Quantity =
IEP.EWMSTOCKQUANTITYBASEUNIT- [Point 3.c-
E_MERGE]
176         Pack Unit =
IEP.EWMSTOCKQUANTITYBASEUNIT
177
178 // NOTES: IF WM Unit is not maintain then Pack
Unit is equal to Base Unit

```

Export Parameter			
Type	Status Indicator		S / E
Message	Message for the error		Success / Error

ListTotalMaterialBin			
Field Name	Description	Remark	Sample Data
EWMWarehouse	Warehouse Number	I_EWM_AV AILABLES TOCK- EWMWarehouse	FA01
EWMStorageType	Storage Type	I_EWM_AV AILABLES TOCK- EWMStorageType	SRR1
EWMStorageBin	Storage Bin	I_EWM_AV AILABLES TOCK- EWMSTORAGEBIN	Example: Storage bin food, non food, cosmetic
TotalMaterial	Total Material ID in storage bin	COUNT DISTINCT (Material)	3
ListTotalStock			
Field Name	Description	Remark	Sample Data
EWMWarehouse	Warehouse Number	I_EWM_AV AILABLES TOCK- EWMWarehouse	FA01
EWMStorageType	Storage Type	I_EWM_AV AILABLES TOCK-	SRP1

		EWMSTOR AGETYPE	
EWMStorageBin	Storage Bin	I_EWM_AV AILABLES TOCK- EWMSTOR AGEBIN	SLP5- 0002
EWMStorageSection	Storage Section	I_EWM_ST ORAGEBIN CUBE- EWMSTOR AGESECTI ON	0001
EWMStorageBinType	Storage Bin Type	I_EWM_ST ORAGEBIN CUBE- EWMSTOR AGEBINTY PE	IP
Product	Material Number	I_PRODUC T- PRODUCT	140001
ProductName	Material Description	I_PRODUC TDESCRIP TION - PRODUCT NAME	FG Bar Soap
ProductOld ID	Old Material Number	I_PRODUC T- PRODUCT OLDID	FGBDS01
Batch	Batch	I_EWM_AV AILABLES	202501010

		TOCK- BATCH	
Expiration	Expiration Date	I_EWM_AV AILABLES TOCK- SHELFLIFE EXPIRATI ONDATE	202701010
HandlingU nitNumber	Handling Unit	IEA.HAND LINGUNIT NUMBER	10000000 011233
AvailQtyIn WMUnit	Available Total Quantity	I_EWM_AV AILABLES TOCK- AVAILABLE EWMSTOC KQTY	
AvailQtyIn WMUnit	Available Quantity in WM Unit	Logic Point 2.b	
AvailQtyIn PackUnit	Available Quantity in Pack Unit	Logic Point 3.b	
PhysQtyIn BaseUnit	Physical Total Quantity	I_EWM_PH YSSTOCK PROD- EWMSTOC KQUANTIT YINBASEU NIT	
PhysQtyIn WMUnit	Physical Quantity in WM Unit	Logic Point 2.c	

PhysQtyIn PackUnit	Physical Quantity in Pack Unit	Logic Point 3.d	
BaseUnit	Base Unit	I_EWM_AV AILABLES TOCK- EWMSTOC KQUANTIT YBASEUNI T I_EWM_PH YSSTOCK PROD- EWMSTOC KQUANTIT YBASEUNI T	
WMUnit	WM Unit / Case Unit	Logic Point 2.a.iii	
PackUnit	Pack Unit	I_EWM_AV AILABLES TOCK- EWMSTOC KQUANTIT YBASEUNI T I_EWM_PH YSSTOCK PROD- EWMSTOC KQUANTIT YBASEUNI T	



Example Export Parameter

✓ Example Export Parameter:

```
{
  "@odata.context":
    "../$metadata#com.sap.gateway.srvd_a2x.zwm_list_stock_ewm.v0001.ZWM_AE_LIST_STOCK_EWM_RSLT",
  "@odata.metadataEtag":
    "W/\"20250515082351\"",
  "Message": "Success get data",
  "Status": "0",
  "Type": "S",
  "ListTotalMaterialBin": [
    {
      "EWMWarehouse": "FA01",
      "EWMStorageType": "9010",
      "EWMStorageBin": "GR-ZONE",
      "TotalMaterial": 7
    }
  ],
  "ListTotalStock": [
    {
      "EWMWarehouse": "FA01",
      "EWMStorageType": "9010",
      "EWMStorageBin": "GR-ZONE",
      "EWMStorageSection": "",
      "EWMStorageBinType": "",
      "Product": "1000004",
      "ProductName": "FG Body Bar Soap 1",
      "ProductOldID": "FGBDS01",
      "Batch": "BATCH-02",
      "HandlingUnitNumber": "10001",
      "AvailQtyInBaseUnit": 2,
      "BaseUnitAvailQty": "PC",
      "AvailQtyInWMUnit":
        0.0000000000000000,
```

```
"WMUnitAvailQty": "",
"AvailQtyInPackUnit":
0.0000000000000000,
"PackUnitAvailQty": "",
"PhysQtyInBaseUnit": 2,
"BaseUnitPhysQty": "PC",
"PhysQtyInWMUnit":
0.0000000000000000,
"WMUnitPhysQty": "",
"PhysQtyInPackUnit":
0.0000000000000000,
"PackUnitPhysQty": ""
},
{
"EWMWarehouse": "FA01",
"EWMStorageType": "9010",
"EWMStorageBin": "GR-ZONE",
"EWMStorageSection": "",
"EWMStorageBinType": "",
"Product": "1000004",
"ProductName": "FG Body Bar Soap 1",
"ProductOldID": "FGBDS01",
"Batch": "0000000503",
"HandlingUnitNumber": "",
"AvailQtyInBaseUnit": 2400,
"BaseUnitAvailQty": "PC",
"AvailQtyInWMUnit":
0.0000000000000000,
"WMUnitAvailQty": "",
"AvailQtyInPackUnit":
0.0000000000000000,
"PackUnitAvailQty": "",
"PhysQtyInBaseUnit": 2400,
"BaseUnitPhysQty": "PC",
"PhysQtyInWMUnit":
0.0000000000000000,
```

```
"WMUnitPhysQty": "",
"PhysQtyInPackUnit":
0.0000000000000000,
"PackUnitPhysQty": ""

}

]

}
```

2 GET Material Master Information (API)

1. Search from the data imported either EAN / Material ID
2. Get Material ID Information
3. Get the Alternate Unit Measurement for the Material / Product
4. Get the WM unit for the material / product
5. Get Pallet (Packaging Specification) Picture URL

```
1 // 0. Get Token
2   Base URL:
   (https://vhpyadwsai01.sap.wingscorp.com:44300/sap/
   opu/odata4/sap/zwmapi_get_ean_mat_uom_o4/srzd_a2x/
   sap/zwm_get_ean_mat_uom/0001/EANMatUnit/com.sap.ga
   teway.srzd_a2x.zwm_get_ean_mat_uom.v0001.getEanMat
   Unit(ProductEAN='1000012',EWMWarehouse='')?sap-
   client=110)
3   Authentication: Bearer Token
4   Response Format: JSON
5   Error Handling: Standard HTTP status codes
   with descriptive error messages
```

Example Data:

```
1 // Client SAP S4 DWS 110
2
3 ProductEAN = '1000012'
4 EWMWarehouse = ''
```

API Parameter's				
Import Parameter				
Field Name	Description	Type	Man data ry	Sam ple Data
ProductEAN	Product / Material / EAN	CHAR(40)	Man data ry	1400 001 / 2050 0000 00119
EWMWarehouse	Warehou se Number	CHAR(4)	Opti onal	FA01

```

1 // 1. Search from the data imported either EAN /
  Material ID
2     Check if it is Material ID / Product
3     SELECT PRODUCT
4     FROM I_PRODUCT
5     WHERE PRODUCTEXTERNALID = [Import
  Parameter-ProductEAN]
6     IF Exist THEN
7         SAVE Variable AS Product
8         Go to step 2
9     ELSE
10    Check if it is EAN
11    SELECT PRODUCT
12    FROM I_PRODUCT
13    WHERE PRODUCTSTANDARDID = [Import
  Parameter-ProductEAN]
14    IF Exist THEN
15        SAVE Variable AS EAN
16        Go to step 2
17    ELSE
18        Return
19        E_ISERROR = X
20        E_MSG = 'Product / EAN Not Found'
21
22 // 2. Get Material ID Information
23 SELECT
24     IP.PRODUCT
25     IP.PRODUCTEXTERNALID,
26     IPD.PRODUCTNAME,
27     IP.PRODUCTOLDID,
28     IP.BASEUNIT
29 FROM
30     I_PRODUCT IP JOIN
31     I_PRODUCTDESCRIPTION IPD ON IPD.PRODUCT =
  IP.PRODUCT JOIN
32     I_PRODUCTUNITSOFMASURE IPUOM ON
  IPUOM.PRODUCT = IP.PRODUCT
33 WHERE
34     IP.PRODUCTSTANDARDID = [Point 1-EAN] OR
35     IP.PRODUCTEXTERNALID = [Point 1-Product]
36
37 // 3. Get the Alternate Unit Measurement for the
  Material / Product
38 SELECT
39     IPUOM.ALTERNATIVEUNIT,
40     IPUOM.QUANTITYNUMERATOR,
41     IPUOM.QUANTITYDENOMINATOR,
42     IPUOM.MATERIALVOLUME,
43     IPUOM.VOLUMEUNIT,
44     IPUOM.GROSSWEIGHT,
45     IPUOM.WEIGHTUNIT,
46     IPUOM.GLOBALTRADEITEMNUMBER,
47     IPUOM.UNITSPECIFICPRODUCTLENGTH,
48     IPUOM.UNITSPECIFICPRODUCTWIDTH,
49     IPUOM.UNITSPECIFICPRODUCTHEIGHT,
50     IPUOM.PRODUCTMEASUREMENTUNIT
51 FROM
52     I_PRODUCT IP ON JOIN

```

```

53      I_PRODUCTUNITSOFMEASURE IPUOM ON
      IPUOM.PRODUCT = IP.PRODUCT
54      WHERE
55          IP.PRODUCTSTANDARDID = [Point 1-EAN] OR
56          IP.PRODUCTEXTERNALID = [Point 1-Product]
57
58      // 4. Get the WM unit for the Material / Product
59      IF Import Parameter-EWMWarehouse = [BLANK]
      THEN
60          RETURN
61          Set Export Parameter-WarehouseUnit =
[BLANK]
62      ELSE
63          4.a Convert Material ID GUID16 to GUID22
with FM /SCMB/MDL_GUID_CONVERT
64              Import IV_GUID16 = [IP.PRODUCTUUID]
65              Export EV_GUID22
66          4.b Get SCU GUID (This is equal to
warehouse number in ERP / MLGT-LGNUM) as EWM is
encrypted
67              SELECT SCUGUID
68                  FROM /SCWM/T300_MD
69                  WHERE LGNUM = [Import Parameter-
EWMWarehouse]
70          4.c Get WM Unit of Measure
71              SELECT PUOM_WH
72                  FROM /SAPAPO/MATLWH
73                  WHERE MATID = [Product/Material
ID/GUID22] AND SCUGUID = [SCUGUID]
74              -----
75              IF PUOM_WH NOT FOUND
76              THEN Set Export Parameter-
WarehouseUnit = [BLANK]
77              ELSE
78              Set Export Parameter-
WarehouseUnit = PUOM_WH
79
80      // 5. Get Pallet (Packaging Specification)
Picture URL
81      CALL FUNCTION READ TEXT
82      IMPORT PARAMETER
83          ID = 'IVER'
84          LANGUAGE = [System Language]
85          NAME = [Point 2-PRODUCT]
86          OBJECT = 'MATERIAL'
87      EXPORT
88          TDLINE
89      -----
90      SET PalletizationPicturePath = TDLINE
91

```

Export Parameter			
Type	Status Indicator		S / E

Message	Message for the error		Success / Error
T_HEADER			
Field Name	Description	Remark	Sample Data
Product	Material Number	I_PRODUCT-T-PRODUCT	1400001
ProductName	Material Description	I_PRODUCTDESCRIPTION - PRODUCT NAME	FG Bar Soap
ProductOldID	Old Material Number	I_PRODUCT-T-PRODUCT OLDID	FGBDS01
BaseUnit	Base Unit (Pack Unit)	I_PRODUCT-T-BASEUNIT	PCS
WarehouseUnit	Warehouse Unit (Case Unit)	Logic Point 4.c	BOX
ProductStandardID	EAN	I_PRODUCT-T-PRODUCTS TANDARDID	2050000000119

PalletizationPicturePath	Path file for palletization picture	Logic Point 5	
T_DETAIL			
Field Name	Description	Remark	Sample Data
AlternateUnit	Alternate Unit Measure	I_PRODUC TUNITSO F MEASURE- ALTERNATI VEUNIT	PAL
QuantityDenominator	Quantity Numerator	I_PRODUC TUNITSO F MEASURE- QUANTITY NUMERATO R	120
QuantityDenominator	Quantity Denominator	I_PRODUC TUNITSO F MEASURE- QUANTITY DENOMINA TOR	1
MaterialVolume	Volume of material	I_PRODUC TUNITSO F MEASURE- MATERIAL VOLUME	89
VolumeUnit	Volume Measurement	I_PRODUC TUNITSO F MEASURE-	M3

		VOLUMEU NIT	
GrossWeight	Gross Weight	I_PRODUC TUNITSO F MEASURE- GROSSWEI GHT	120
WeightUnit	Weight Unit	I_PRODUC TUNITSO F MEASURE- WEIGHTUN IT	KG
GlobalTradeItemNumber	EAN	I_PRODUC TUNITSO F MEASURE- GLOBALTR ADEITEMN UMBER	205000 0000119
UnitSpecificProductLength	Length	I_PRODUC TUNITSO F MEASURE- UNITSPECI FICPRODU CTLENGTH	36
UnitSpecificProductWidth	Width	I_PRODUC TUNITSO F MEASURE- UNITSPECI FICPRODU CTWIDTH	46
UnitSpecificProductHeight	Height	I_PRODUC TUNITSO F MEASURE- UNITSPECI	56

		FICPRODU CTHEIGHT	
ProductMeasur ementUnit	Dimensi on Unit	I_PRODUC TUNITSO F MEASURE- PRODUCT MEASURE MENTUNIT	DM

Example Export Parameter

Example Export Parameter:


```
{
  "@odata.context":
    "../$metadata#com.sap.gateway.srvd_a2x.zwm_get_ean_mat_uom.v0001.ZWM_AE_GET_EA  
N_MAT_UOM_RSLT",
  "@odata.metadataEtag":
    "W/\"20250515005648\"",
  "Message": "Success get data",
  "Status": "200",
  "Type": "S",
  "MaterialData": {
    "Product": "1000012",
    "ProductName": "Post Material 01",
    "ProductOldID": "OLD_MAT 001",
    "ProductStandardID": "",
    "BaseUnit": "PC",
    "WarehouseUnit": "",
    "PalletizationPicturePath":
      "/PATH_URL_PALLETIZATION_PICTURE",
    "ListUnitData": [
      {
        "AlternateUnit": "BOX",
        "QuantityNumerator": 2,
        "QuantityDenominator": 1,
```

```
"MaterialVolume": 0.000,
"VolumeUnit": "",
"GrossWeight": 0.000,
"WeightUnit": "",
"GlobalTradeItemNumber":
"978020137962",
"UnitSpecificProductLength": 0.000,
"UnitSpecificProductWidth": 0.000,
"UnitSpecificProductHeight": 0.000,
"ProductMeasurementUnit": ""
},
{
"AlternateUnit": "CTN",
"QuantityNumerator": 12,
"QuantityDenominator": 1,
"MaterialVolume": 4.320,
"VolumeUnit": "M3",
"GrossWeight": 24.000,
"WeightUnit": "KG",
"GlobalTradeItemNumber":
"978020137962",
"UnitSpecificProductLength": 12.000,
"UnitSpecificProductWidth": 36.000,
"UnitSpecificProductHeight": 10.000,
"ProductMeasurementUnit": "DM"
},
{
"AlternateUnit": "G",
"QuantityNumerator": 1,
"QuantityDenominator": 1,
"MaterialVolume": 0.024,
"VolumeUnit": "M3",
"GrossWeight": 2000.000,
"WeightUnit": "G",
"GlobalTradeItemNumber":
"978020137962",
```

```
"UnitSpecificProductLength": 2.000,  
"UnitSpecificProductWidth": 3.000,  
"UnitSpecificProductHeight": 4.000,  
"ProductMeasurementUnit": "DM"  
},  
{  
  "AlternateUnit": "PAL",  
  "QuantityNumerator": 120,  
  "QuantityDenominator": 1,  
  "MaterialVolume": 89.424,  
  "VolumeUnit": "M3",  
  "GrossWeight": 240.000,  
  "WeightUnit": "KG",  
  "GlobalTradeItemNumber":  
"978020137962",  
  "UnitSpecificProductLength":  
36.000,  
  "UnitSpecificProductWidth": 46.000,  
  "UnitSpecificProductHeight": 54.000,  
  "ProductMeasurementUnit": "DM"  
},  
{  
  "AlternateUnit": "PC",  
  "QuantityNumerator": 1,  
  "QuantityDenominator": 1,  
  "MaterialVolume": 0.000,  
  "VolumeUnit": "",  
  "GrossWeight": 0.000,  
  "WeightUnit": "G",  
  "GlobalTradeItemNumber": "",  
  "UnitSpecificProductLength": 0.000,  
  "UnitSpecificProductWidth": 0.000,  
  "UnitSpecificProductHeight": 0.000,  
  "ProductMeasurementUnit": ""  
}  
]  
]
```

```
}  
  
}
```

3

 Get List Storage Type and Storage Bin for Putaway

STVARV NAME = 'ZWM_PUTAWAY_STORAGE_BIN'

Separator '-' and Format is [Type]-[Storage Type]-[Storage Bin]

Example:

- Case-9010-GRCASE
- Pack-9010-GRPACK

4

GET Total
Count of
Material in
Storage Bin
Putaway (API)

- 1. Get list of stock material
 - a. Get list of stock material
- b. Count material id in each storage bin group by material, batch, HU

```
1 // 0. Get Token  
2     Base URL: ()  
3     Authentication: Bearer Token  
4     Response Format: JSON  
5     Error Handling: Standard HTTP status codes  
        with descriptive error messages
```

Example Data:

```
1 // Client SAP S/4 DWS 110  
2  
3 EWMWarehouse='FA01'  
4 EWMStorageType=''  
5 EWMStorageBin=''  
6 EWMStorageSection=''
```

API Parameter's				
Import Parameter				
Field Name	Descri ption	Type	Mandat ory	Sample Data
EWMWareh ouseNumbe r	Wareh ouse Numb er	CHAR(4)	Mandat ory	FA01
EWMStorag eType	Storag e Type	CHAR(4)	Optiona l	SRP1

EWMStorage Bin	Storage Bin	CHAR(18)	Optional	SLP5-0002
----------------	-------------	----------	----------	-----------

```

1  For each storage bin inputted
2  // 1. Get list of stock material
3      1.a. Get stock (Non HU)
4          SELECT
5              IP.PRODUCT,
6              IPD.PRODUCTNAME,
7              IP.PRODUCTOLDID,
8              IEA.EWMSTORAGETYPE,
9              IEA.EWMSTORAGEBIN,
10             IES.EWMSTORAGESECTION,
11             IES.EWMSTORAGEBINTYPE,
12             IEA.BATCH,
13             IEA.AVAILABLEEWMSTOCKQTY,
14             IEA.EWMSTOCKQUANTITYBASEUNIT,
15             IEP.EWMSTOCKQUANTITYINBASEUNIT,
16             IEP.EWMSTOCKQUANTITYBASEUNIT,
17             IEA.HANDLINGUNITNUMBER
18         FROM
19             I_EWM_AVAILABLESTOCK IEA JOIN
20             I_EWM_STORAGEBININCUBE IES ON
21             IEA.EWMWAREHOUSE = IES.EWMWAREHOUSE
22             AND IEA.EWMSTORAGEBIN ON
23             IES.EWMSTORAGEBIN JOIN
24             I_EWM_PHYSSTOCKPROD IEP ON
25             IEP.PARENTHANDLINGUNITUUID =
26             IEA.PARENTHANDLINGUNITUUID
27             AND IEP.STOCKITEMUUID =
28             IEA.STOCKITEMUUID JOIN
29             I_PRODUCT IP ON IP.PRODUCT =
30             IEP.PRODUCT JOIN
31             I_PRODUCTDESCRIPTION IPD ON
32             IPD.PRODUCT = IP.PRODUCT
33         WHERE
34             IEA.EWMWAREHOUSE = [Import Parameter-
35             EWMWarehouseNumber]
36             IEA.EWMSTORAGETYPE = [Import
37             Parameter-EWMStorageType]
38             IEA.EWMSTORAGEBIN = [Import
39             Parameter-EWMStorageBin]
40             IES.EWMSTORAGESECTION = [Import
41             Parameter-EWMStorageSection]
42             IPD.LANGUAGE = [System Language]
43
44      1.b. Get stock (HU Open WT) // this will be
45      considered as physical stock
46      1.b.ii. Get physical stock HU
47          SELECT
48              OO.LGNUM
49              OO.VLTYP
50              OO.VLPLA
51              OO.VLBER
52              OO.NLENR
53              LAGP.LPTYP
54              OO.SGUID_HU

```

```

43          FROM /LIME/NQUAN LN JOIN
44              /SCWM/ORDIM_0 00 ON
45          LN.GUID_PARENT = 00.SGUID_HU JOIN
46              /SCWM/LAGP LAGP ON LAGP.LGPLA
47          = 00.VLPLA AND LAGP.LGNUM = 00.LGNUM
48          WHERE
49              00.VLPLA = [Import Parameter-
EWMStorageBin] AND
50              00.MATID = 'BLANK' / NULL AND
51              00.LGNUM = [Import Parameter-
EWMWarehouseNumber]
52
53          1.b.iii. Get list of material for the HU
54          CALL FUNCTION
55          /SCWM/HU_READ_MULT
56              IMPORT PARAMETER:
57              IT_GUID_HU = [Point 1.b.ii-
SGUID_HU]
58              EXPORT PARAMETER:
59              ET_HUITM =
60              MATID
61              QUAN
62              MEINS
63              BATCHID
64              If BATCHID IS NOT EMPTY THEN
65              SELECT CHARG
66              FROM I_BATCH
67              WHERE
68              BATCHEXTWHSEMGMTINTERNALID = [Export Parameter-
BATCHID]
69
70          1.b.iv. Get the material information
71          SELECT
72              IP.PRODUCT,
73              IPD.PRODUCTNAME,
74              IP.PRODUCTOLDID,
75              FROM I_PRODUCT IP JOIN
76              I_PRODUCTDESCRIPTION IPD ON
77              IPD.PRODUCT = IP.PRODUCT
78              WHERE
79              IP.PRODUCT = [Export
Parameter-MATID]
80              IPD.LANGUAGE = [System
Language]
81
82          1.c. Count material id in each storage bin
83          (Only Available Stock for Warehouse Task
84          Creation) for each with HU and Non HU
85          SELECT
86              IEA.EWMSTORAGEBIN,
87              COUNT DISTINCT (Material)
88              COUNT DISTINCT (HU)
89              FROM
90              I_EWM_AvailableStock IEA JOIN
91              I_EWM_STORAGEBINCUBE IES ON
92              IEA.EWMWAREHOUSE = IES.EWMWAREHOUSE
93              AND IEA.EWMSTORAGEBIN ON
94              IES.EWMSTORAGEBIN
95              WHERE

```

```

87      IEA.EWMWAREHOUSE = [Import Parameter-
      EMMWarehouseNumber]
88      IEA.EWMSTORAGETYPE = [Import
      Parameter-EWMStorageType]
89      IEA.EWMSTORAGEBIN = [Import
      Parameter-EWMStorageBin]
90      IES.EWMSTORAGESECTION = [Import
      Parameter-EWMStorageSection]
91

```

Export Parameter			
Type	Status Indicator		S / E
Message	Message for the error		Success / Error
ListTotalMaterialHU			
Field Name	Description	Remark	Sample Data
EWMWarehouse			FA01
EWMStorageType			9010
EWMStorageBin			GR-ZONE
UnitType			Case
TotalHU			10
TotalMaterial			5
ListTotalMaterialNonHU			
Field Name	Description	Remark	Sample Data

EWMWare house			FA01
EWMStora geType			9010
EWMStora geBin			GR-ZONE
UnitType			Case
TotalMateri al			5

Example Export Parameter

Example Export Parameter:

5 GET List of
Detail Stock in
Storage Bin
Putaway

1. Get list of stock material
- a. Get stock
- b. Count material id in each storage bin
2. Get quantity in WM Unit (quantity in warehouse unit measurement)
- a. Get WM Unit of Measure
- b. Convert Quantity to WM Unit
3. Get Pack Unit (decimal

```
1 // 0. Get Token
2   Base URL: ()
3   Authentication: Bearer Token
4   Response Format: JSON
5   Error Handling: Standard HTTP status codes
   with descriptive error messages
```

Example Data:

```
1 // Client SAP S/4 DWS 110
2
```

API Parameters				
Import Parameter				
Field Name	Description	Type	Mandatory	Sample Data
EWMWare houseNu mber	Wareho use Number	CHAR(4)	Mandat ory	FA01

quantity of
warehouse unit
measurement
in base unit)

a. Convert WM
Unit in point
2 to Base
Unit

b. Calculate
Pack unit

EWMStorageType	Storage Type	CHAR(4)	Mandatory	SRP1
EWMStorageBin	Storage Bin	CHAR(18)	Mandatory	SLP5-0002
FlagHU	HU or Non HU	CHAR(1)	Mandatory	X

```
1 CALL LOGIC SAME AS POINT 'GET List of stock in
Storage Bin' -> Z_FM_EWM_GET_LIST_STOCK
2 Add filter based on and grouping based on
Material, Batch, HU
3 IF FlagHU = X THEN
4 Return WHERE HU != Blank
5 ELSE FlagHU = '' THEN
6 Return WHERE HU = Blank
```

Export Parameter			
Type	Status Indicator		S / E
Message	Message for the error		Success / Error
Field Name	Description	Remark	Sample Data
EWMWarehouse	Warehouse Number	I_EWM_AVAILABLES TOCK-EWMWarehouse	FA01
EWMStorageType	Storage Type	I_EWM_AVAILABLES TOCK-EWMSTORAGE TYPE	SRP1
EWMStorageBin	Storage Bin	I_EWM_AVAILABLES	SLP5-0002

		TOCK- EWMSTOR AGEBIN	
EWMStorageSection	Storage Section	I_EWM_ST ORAGEBIN CUBE- EWMSTOR AGESECTI ON	0001
EWMStorageBinType	Storage Bin Type	I_EWM_ST ORAGEBIN CUBE- EWMSTOR AGEBINTY PE	IP
Product	Material Number	I_PRODUC T- PRODUCT	140001
ProductName	Material Description	I_PRODUC TDESCRIP TION - PRODUCT NAME	FG Bar Soap
ProductOld ID	Old Material Number	I_PRODUC T- PRODUCT OLDID	FGBDS01
Batch	Batch	I_EWM_AV AILABLES TOCK- BATCH	202501010
Expiration	Expiration Date	I_EWM_AV AILABLES TOCK-	202701010

		SHEFLIFE EXPIRATI ONDATE	
HandlingU nitNumber	Handling Unit	IEA.HAND LINGUNIT NUMBER	10000000 011233
AvailQtyIn WMUnit	Available Total Quantity	I_EWM_AV AILABLES TOCK- AVAILABLE EWMSTOC KQTY	
AvailQtyIn WMUnit	Available Quantity in WM Unit	Logic Point 2.b	
AvailQtyIn PackUnit	Available Quantity in Pack Unit	Logic Point 3.b	
PhysQtyIn BaseUnit	Physical Total Quantity	I_EWM_PH YSSTOCK PROD- EWMSTOC KQUANTIT YINBASEU NIT	
PhysQtyIn WMUnit	Physical Quantity in WM Unit	Logic Point 2.c	
PhysQtyIn PackUnit	Physical Quantity in Pack Unit	Logic Point 3.d	
BaseUnit	Base Unit	I_EWM_AV AILABLES	

				TOCK- EWMSTOC KQUANTIT YBASEUNI T I_EWM_PH YSSTOCK PROD- EWMSTOC KQUANTIT YBASEUNI T	
		WMUnit	WM Unit / Case Unit	Logic Point 2.a.iii	
		PackUnit	Pack Unit	I_EWM_AV AILABLES TOCK- EWMSTOC KQUANTIT YBASEUNI T I_EWM_PH YSSTOCK PROD- EWMSTOC KQUANTIT YBASEUNI T	
<div>Example Export Parameter</div> <div>✓ Example Export Parameter:</div>					
6	Get Detail Stock IM Level (API &	1. Get overall stock in plant	<div>1 // 0. Get Token 2 Base URL: ({{sap- host}}/sap/opu/odata4/sap/zwmapi_list_stock_im_o4/</div>		

Function)

dan storage
location from
MMBE_MARD_
V based on

- Plant*
- Storage Location*
- Material
- Batch
- Doc Ref Type
- Doc No

2. Get stock with
batch for the
material in that
plant and
storage
location

3. Get project
stock for the
material in that
plant and
storage
location

4. Get list of HU
and it's stock
for that plant
and storage
location and
material (if
inputted)
◦ Join from
VEPO, VEKP

5. Deduct Based
on stock
category

```
srvd_a2x/sap/zwm_list_stock_im/0001/StockIM/com.sap.gateway.srvd_a2x.zwm_list_stock_im.v0001.getListStock(Plant='5AW0',StorageLocation='T001',Product='1000688',Batch='',WBSElement='',SalesOrder='',SalesOrderItem='')?sap-client={{sap-client}})
3 Authentication: Bearer Token
4 Response Format: JSON
5 Error Handling: Standard HTTP status codes with descriptive error messages
```

Example Data:

```
1 // Client SAP S/4 DWS 110
2
```

API Parameters				
Import Parameter				
Field Name	Description	Type	Mandatory	Sample Data
I_PLANT		CHAR(4)	Mandatory	
I_STORAGE_LOCATION		CHAR(4)	Mandatory	
I_PRODUCT		CHAR(40)	Optional	
I_BATCH		CHAR(10)	Optional	
I_REFERENCE_TYPE		CHAR(3)	Optional	
I_DOCUMENT		CHAR(35)	Optional	

```
1 // 1. Get the stock overall for the plant and storage location
2 SELECT MATNR, MAKTX, MEINS, WERKS, LGORT, LABST, UMLME, INSME, SPEME
3 FROM
```

```

4      MMBE_MARD_V MARD JOIN
5      MMBE_MARA_V MARA ON MARD.MATNR = MARA.MATNR
6  WHERE
7      WERKS = [Import Parameter-I_PLANT]
8      LGORT = [Import Parameter-I_STORAGELOCATION]
9      MATNR = [Import Parameter-I_PRODUCT]
10     LVORM != X (No Deletion Flag)
11
12 // 2. Get stock with batch for the material in
13 that plant and storage location
14 SELECT MATNR, WERKS, LGORT, CHARG, CLABS, CUMLM,
15 CINSM, CSPERM
16 FROM MCHB
17 WHERE
18     WERKS = [Import Parameter-I_PLANT]
19     LGORT = [Import Parameter-I_STORAGELOCATION]
20     MATNR = [Import Parameter-I_PRODUCT]
21     CHARG = [Import Parameter-I_BATCH]
22
23 // 3. Get project stock for the material in that
24 plant and storage location
25 SELECT MATNR, WERKS, LGORT, CHARG, SOBKZ, PSPNR,
26 PRLAB, PRINS, PRSPE
27 FROM MSPR
28 WHERE
29     WERKS = [Import Parameter-I_PLANT]
30     LGORT = [Import Parameter-I_STORAGELOCATION]
31     MATNR = [Import Parameter-I_PRODUCT]
32     CHARG = [Import Parameter-I_BATCH]
33     SOBKZ = [Import Parameter-I_REF_DOC_TYPE]
34     PSPNR = [
35         CONVERSION_EXIT_ABPSP_INPUT
36         IMPORT PARAMETER:
37         INPUT: Import Parameter-I_DOC_NO
38         EXPORT PARAMETER:
39         OUTPUT
40     ]
41
42 // 4. Get list of HU for the material in that
43 plant dan storage location
44 SELECT EXIDV, MATNR, VEMNG, CHARG, WERKS, LGORT,
45 BESTQ, SOBKZ, SONUM
46 FROM VEKP JOIN VEPO ON VEKP.VENUM = VEPO.VENUM
47 WHERE
48     WERKS = [Import Parameter-I_PLANT]
49     LGORT = [Import Parameter-I_STORAGELOCATION]
50     MATNR = [Import Parameter-I_PRODUCT]
51     CHARG = [Import Parameter-I_BATCH]
52     SONUM = [Point 3]
53
54 // 5. Deduct the quantity in point 1 based on
55 point 2 and 3
56 See simulation in spreadsheet:
57 https://docs.google.com/spreadsheets/d/1Y-  
ppeq208fva7uHANIonc7aip5uDpAqe5i\_hJLNWPY8/edit?  
gid=0#gid=0
58
59 // Get the material information
60 SELECT

```

```

54 MATNR,
55 MAKTX,
56 PRODUCTOLDID,
57 PRODUCTHIERARCHY,
58 PRODUCTHIERARCHYTEXT
59 FROM
60 MMBE_MARA_V MARA JOIN
61 I_PRODUCT IP ON IP.PRODUCT = MARA.MATNR JOIN
62 I_PRODUCTHIERARCHYTEXT IPH ON
LEFT(1,IP.PRODUCTHIERARCHY) =
IPH.PRODUCTHIERARCHY
63 WHERE
64 I_PRODUCT IP ON IP.PRODUCT = IEP.PRODUCT JOIN
65 I_PRODUCTDESCRIPTION IPD ON IPD.PRODUCT =
IP.PRODUCT JOIN
66 I_PRODUCTHIERARCHYTEXT IPH ON
LEFT(1,IP.PRODUCTHIERARCHY) =
IPH.PRODUCTHIERARCHY

```

Revision Logic for step 1 to 3 (Change getting stock with CDS I_MATERIALSTOCK)

```

1 // 1. Get stock from I_MATERIALSTOCK group by
Batch, WBS
2 SELECT
3 FROM I_MATERIALSTOCK
4 WHERE
5 PLANT = [Import Parameter-I_PLANT]
6 STORAGELOCATION = [Import Parameter-
I_STORAGELOCATION]
7 MATERIAL = [Import Parameter-I_PRODUCT]
8 BATCH = [Import Parameter-I_BATCH]
9 WBSELEMENTINTERNALID = [Import Parameter-
I_DOCNO]
10
11 // 2. Get stock for HU group by HU, Batch, WBS
12 SELECT EXIDV, MATNR, VEMNG, CHARG, WERKS,
LGORT, BESTQ, SOBKZ, SONUM
13 FROM VEKP JOIN VEPO ON VEKP.VENUM =
VEPO.VENUM
14 WHERE
15 WERKS = [Import Parameter-I_PLANT]
16 LGORT = [Import Parameter-
I_STORAGELOCATION]
17 MATNR = [Import Parameter-I_PRODUCT]
18 CHARG = [Import Parameter-I_BATCH]
19 SONUM = [Import Parameter-I_DOCNO]
20
21 // 3. Deduct stock from point 1 based on point 2
22
23 // 4. UNION the stock that has been filtered
24 Point 1
25 UNION
26 Point 3

```

Simulation: https://docs.google.com/spreadsheets/d/1Y-ppeq208fva7uHANIonc7aip5uDpAqe5i_hJLNWPY

Export Parameter			
Type	Status Indicator		S / E
Message	Message for the error		Success / Error
Field Name	Description	Remark	Sample Data
Plant	Plant		1AA0
StorageLocation	Storage Location		A001
Product	Product		20030
ProductName	Product Description		SEDAAP GORENG
ProductOld ID	Old MID		SM03
Batch	Batch		250401R001
Hu	Handling Unit		190000000323103
RefDocType	Document Category		Q
RefDocNo	Document Number		C/SDCAS01
UnrestrictedStock	Unrestricted Stock		10
StockInTransferSloc	Stock In Transfer Sloc Level		35

BlockStock	Block Stock		23
QualityIns pectionSto ck	Quality Inspection Stock		50
UnitOfMea sure	Unit of Measure		PCS

Example Export Parameter

Example Export Parameter:

```
1 {
2   "@odata.context":
3     "../$metadata#com.sap.gateway.srvd_a2x.zwm
4     _list_stock_im.v0001.ZWM_AE_LIST_STOCK_IM_
5     RSLT",
6   "@odata.metadataEtag":
7     "W/\\"20250804110045\\\"",
8   "Message": "Success get data",
9   "Status": "200",
10  "Type": "S",
11  "ListStock": [
12    {
13      "Plant": "5AW0",
14      "StorageLocation": "T001",
15      "Product": "1000688",
16      "ProductName": "Soklin
17      Bergamot 1500mL",
18      "ProductOldID": "FGBS110V4",
19      "ProductHierarchy": "",
20      "ProductHierarchyName": "",
21      "Batch": "0000001291",
22      "ReferenceDocument": "",
23      "ReferenceDocumentType": "",
24      "HandlingUnit": "",
25      "StockUnrestricted": 1,
26      "StockInTransfer": 0,
27      "StockInQI": 0,
28      "StockBlocked": 0,
29      "StockUnit": "PC"
30    },
31    {
32      "Plant": "5AW0",
33      "StorageLocation": "T001",
34      "Product": "1000688",
35      "ProductName": "Soklin
36      Bergamot 1500mL",
37      "ProductOldID": "FGBS110V4",
38      "ProductHierarchy": "",
39      "ProductHierarchyName": "",
40      "Batch": "0000001806",
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35         "ReferenceDocument": "",
36         "ReferenceDocumentType": "",
37         "HandlingUnit": "",
38         "StockUnrestricted": 10,
39         "StockInTransfer": 0,
40         "StockInQI": 0,
41         "StockBlocked": 0,
42         "StockUnit": "PC"
43     },
44     {
45         "Plant": "5AW0",
46         "StorageLocation": "T001",
47         "Product": "1000688",
48         "ProductName": "Soklin
Bergamot 1500mL",
49         "ProductOldID": "FGBS110V4",
50         "ProductHierarchy": "",
51         "ProductHierarchyName": "",
52         "Batch": "INTERC0017",
53         "ReferenceDocument": "",
54         "ReferenceDocumentType": "",
55         "HandlingUnit":
"190000001000010127",
56         "StockUnrestricted": 100,
57         "StockInTransfer": 0,
58         "StockInQI": 0,
59         "StockBlocked": 0,
60         "StockUnit": "PC"
61     },
62     {
63         "Plant": "5AW0",
64         "StorageLocation": "T001",
65         "Product": "1000688",
66         "ProductName": "Soklin
Bergamot 1500mL",
67         "ProductOldID": "FGBS110V4",
68         "ProductHierarchy": "",
69         "ProductHierarchyName": "",
70         "Batch": "INTERC0017",
71         "ReferenceDocument": "",
72         "ReferenceDocumentType": "",
73         "HandlingUnit":
"190000001000010158",
74         "StockUnrestricted": 100,
75         "StockInTransfer": 0,
76         "StockInQI": 0,
77         "StockBlocked": 0,
78         "StockUnit": "PC"
79     },
80     {
81         "Plant": "5AW0",
82         "StorageLocation": "T001",
83         "Product": "1000688",
84         "ProductName": "Soklin
Bergamot 1500mL",
85         "ProductOldID": "FGBS110V4",
86         "ProductHierarchy": "",
87         "ProductHierarchyName": "",
88         "Batch": "INTERC0017",
89         "ReferenceDocument": "",

```

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90         "ReferenceDocumentType": "",
91         "HandlingUnit":
"190000001000010189",
92         "StockUnrestricted": 100,
93         "StockInTransfer": 0,
94         "StockInQI": 0,
95         "StockBlocked": 0,
96         "StockUnit": "PC"
97     },
98     {
99         "Plant": "5AW0",
100        "StorageLocation": "T001",
101        "Product": "1000688",
102        "ProductName": "Soklin
Bergamot 1500mL",
103        "ProductOldID": "FGBS110V4",
104        "ProductHierarchy": "",
105        "ProductHierarchyName": "",
106        "Batch": "INTERC0017",
107        "ReferenceDocument": "",
108        "ReferenceDocumentType": "",
109        "HandlingUnit":
"190000001000010448",
110        "StockUnrestricted": 100,
111        "StockInTransfer": 0,
112        "StockInQI": 0,
113        "StockBlocked": 0,
114        "StockUnit": "PC"
115    },
116    {
117        "Plant": "5AW0",
118        "StorageLocation": "T001",
119        "Product": "1000688",
120        "ProductName": "Soklin
Bergamot 1500mL",
121        "ProductOldID": "FGBS110V4",
122        "ProductHierarchy": "",
123        "ProductHierarchyName": "",
124        "Batch": "INTERC0017",
125        "ReferenceDocument": "",
126        "ReferenceDocumentType": "",
127        "HandlingUnit":
"190000001000010530",
128        "StockUnrestricted": 100,
129        "StockInTransfer": 0,
130        "StockInQI": 0,
131        "StockBlocked": 0,
132        "StockUnit": "PC"
133    },
134    {
135        "Plant": "5AW0",
136        "StorageLocation": "T001",
137        "Product": "1000688",
138        "ProductName": "Soklin
Bergamot 1500mL",
139        "ProductOldID": "FGBS110V4",
140        "ProductHierarchy": "",
141        "ProductHierarchyName": "",
142        "Batch": "INTERC0017",
143        "ReferenceDocument": "",

```

```

144         "ReferenceDocumentType": "",
145         "HandlingUnit":
146             "19100000000005109",
147         "StockUnrestricted": 21,
148         "StockInTransfer": 0,
149         "StockInQI": 0,
150         "StockBlocked": 0,
151         "StockUnit": "PC"
152     }
153 }

```

4.1.1 Data Structure

4.1.2 Mapping and Transformation

5 Security and Controls

5.1 Security Requirements

<Describe any security requirements that need to be put in place as a result of using this development object. This could include security access to affected transactions or new transactions that may result from this development. For example - this section should answer the question “Are there SOX compliance requirements?”>

<Complete the table below to reflect the security requirements outlined above.>

Authorization Object	Authorization Field

6 Functional Unit Test Scenarios

6.1 Test Scenario / Data

{Provide test scenario for developer better understanding of the functional requirements}

Step #	Test Type	Scenario Title	Steps Performed	Expected Results	Actual Results
1.	Positive	Success return list of	1. Select Available Stock from	Provide List stock available	TBA

		available stock	Import Parameter 2. Return list of available stock		
2.	Negative	Fail to return list of available stock	1. Select Available Stock from Import Parameter 2. Return list of available stock	None of list available stock is return and return error message	TBA

6.2 Error Handling, Validation, Correction and Recovery

No.	Exception Desc.	Mess. Type	Language	Message Text (50 Characters only)
1.	Warehouse Number is not found	E	EN	Warehouse Number is not found!
2.	Warehouse Number is not found	E	ID	Nomor gudang tidak ditemukan
3.	Data not found	E	EN	Data is not found!
4.	Data not found	E	ID	Data tidak ditemukan!

Error Responses

API Endpoint	Error Code	Message
--------------	------------	---------

GET	400	"Missing required parameters"
	404	"No records found matching the criteria"
	500	"Database connection failed"
POST	400	"Missing required fields" "Invalid data format"
	409	"Transaction already exists"
	500	"Database connection failed"
PATCH	400	"Invalid update fields"
	404	"No records found matching the criteria"
	500	"Database connection failed"

7 Attachments and Documentation

<Attach any additional information in the form of documentation / Appendix / attachments.>