



# **SUPPLIER MANAGED INVENTORY (SMI) WITH REPLENISHMENT ORDER SUPPLIER TRAINING GUIDE**

**Honeywell**

**SAP**

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# **INTRODUCTION**

# SUPPLIER MANAGED INVENTORY

## REPLENISHMENT ORDER – PROCESS INTRODUCTION

- **Supplier Managed Inventory (SMI)** - Also called vendor Managed Inventory (VMI). - is a business model where the buyer of a product provides certain information to a supplier (vendor) of that product and the supplier takes full responsibility for maintaining an agreed inventory of the material, usually at the buyer's consumption location
- In Replenishment Order, Purchase Orders are generated
- SMI provides foundational capability for supply chain collaboration between Buyers and Suppliers by sharing inventory and demand information and replenishment of inventory based on established Min/Max stock level

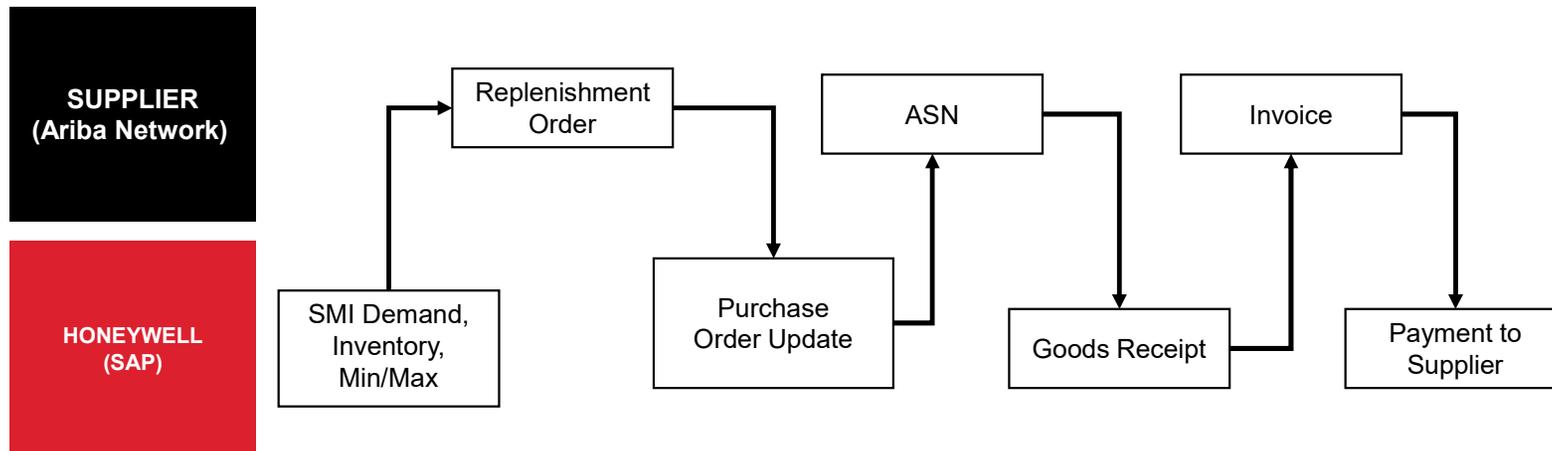
### **Benefits for Suppliers :**

- Visibility of the buyer's demand and inventory data enables more accurate forecasting and planning
- Reduce buyer ordering errors resulting in decrease in potential returns.
- Visibility of stock levels enables proper prioritization of orders.

# SUPPLIER MANAGED INVENTORY

## REPLENISHMENT ORDER – WORKFLOW

1. Honeywell shares on Ariba Network Gross Demand, Inventory, Min and Max from the ERP.
2. The supplier reviews the projected stock and reflects their planning decision by entering replenishments to meet demand requirements and the agreed stocking policy.
3. The Purchase Order in the ERP will be updated and sent to the Ariba network where it is available for the supplier.
4. At the time of dispatch, the supplier creates an ASN.
5. Following receipt in Honeywell's ERP, the goods receipt status is updated on the network.
6. Invoice
7. Payment



# MODES OF INTEGRATION AND AUTOMATION

Ariba allows suppliers to work in different modes and B2B is not supported in SMI:



**Ariba Portal:** The Supplier works online through a Web Browser. Data entry can be on screen or using download and upload functionality.



**Manual:** The Supplier can manually enter the data in Portal and upload



**Excel:** The Supplier can utilize Excel options to upload data.

# **PORTAL USER INTERACTION**

# PLANNING COLLABORATION

## OVERVIEW – MAIN SCREEN

From the Homepage:

1. Click on **Planning** and then **Planning Collaboration**.
2. Screen represents the overall status for all materials under Planning Collaboration
3. “Search filters” help to identify the right item. Expand the section and enter specific search criteria from available option.
4. Selecting options under “Search Filters”
  - a) Under “Customer” option, select Honeywell
  - b) If searching for specific material details, then enter the material specific part number under “Supplier part no” or if details of entire list of materials under VMI is required then leave the option untouched
  - c) Under “Process type” option select “Replenishment” or under “Customer view” option select “Supplier Managed Replenishment View” (Choose any 1, prior option preferred)
  - d) Enter “Search” after selecting the required options mentioned above and all materials will start to display below

### Note:

- Refer for more details on Search Filters description & Customer Defined Attributes Options in Appendix
- Don't copy paste or write names, numbers in the “search filters” options directly, instead write the initials and then select from the drop-down option

The screenshot shows the SAP Business Network interface. At the top, the 'Planning' menu is highlighted with a red box and labeled '1'. A dropdown menu is open, showing 'Forecast' and 'Planning Collaboration', with the latter highlighted and labeled '2'. Below this, a table displays material stock information with columns for Customer, Customer part no., Supplier part no., Stock on hand (Quantity and Status), Stock levels (Min. and Max.), Unit, and 10 v proj. Two rows are visible, with the second row highlighted. Below the table, the 'Planning Collaboration' section is shown, with a 'Search filters' button labeled '3'. The search filters are expanded, showing various input fields. Callouts 'a' through 'd' point to specific fields: 'a' points to the Customer field (Honeywell), 'b' points to the Supplier part no. field, 'c' points to the Process type field (Replenishment), and 'd' points to the Customer view field (Supplier Managed Replenishment View). A 'Search' button is visible at the bottom right of the search filters section.

Customer	Customer part no.	Supplier part no.	Stock				Unit	10 v proj
			Stock on hand		Stock levels			
			Quantity	Status	Min.	Max.		
SCC Delivery Team - Global H19 Client 400 - TEST	BP001	S_BP001	219	On track	0	0		
SCC Delivery Team - Global H19 Client 400 - TEST	SP001		6,323	Above	2,000	3,000	PC	

# PLANNING COLLABORATION

## OVERVIEW – MAIN SCREEN - COLUMNS

5. You can sort the columns by clicking on any header.
6. You can hide or display the report columns by clicking the configure icon.
7. Total list of configure options

The screenshot shows the 'Planning Collaboration' interface. At the top, there is a search filter section. Below it is a table with columns: Customer, Customer part no., and Supplier part no. The table contains two rows of data. To the right of the table, there is a 'Page 1' indicator and a 'Configure' icon (a gear with a plus sign) highlighted by a red box and labeled with a red circle '5'. A red circle '6' is placed over the search filter area.

7

Supplier part no.	Outline Agreement	Lead time
Description	Info Category	Part status
Purchasing Info Record	Last PO No	Last customer update
Planned Delivery Time	Batch/Expiry Date	Last supplier update
Lot Size	Sub Process Type	Quantity
Rounding Value	Customer location	Status
Min. stock level	Planner Code	Product family
Max. stock level	Process type	Product subfamily
Unit	Customer view	External program code
Min. days of supply	Manufacturer name	Part type
Max. days of supply	Manufacturer part ID	Part category
10 weeks projection	Line of business	System ID

**Note:** All Configure Options may not be available, the availability of options changes with each Collaboration

# PLANNING COLLABORATION

## OVERVIEW – MAIN SCREEN – STOCK DETAILS

8. Click Stock on Hand status aligned to your material row & a pop-up window will display further details
9. Stock on hand and Min / Max Levels
10. Different stock types status transmitted from Honeywell ERP
11. Click Projected Stock / 10 weeks Projection aligned to your material row & a Pop-up window will display exact stock within a given week (each bar representing a week).
12. From the color coding also, the Supplier can see whether the material is on track, out of stock etc.

Stock on hand		Stock levels		Unit	10 weeks projection	Process type
Quantity	Status	Min.	Max.			
2	On track			EA	██████████	Replenishment
100	Below minimum	2,000	10,000	EA	██████████	Replenishment
0	Out of stock	150	300	EA	██████████	Replenishment
0	No data	0	0	EA	██████████	Replenishment
0	No data	0	0	EA	██████████	Replenishment

**9**

**10**

- Buyer own stock
- Unrestricted 100
- Quality
- Blocked
- Special stock
- Stock in transit
- Subcontracting
- Consignment
- Unrestricted
- Blocked
- Quality

**11**

**12**

- On track
- Above maximum
- Below minimum
- Out of stock
- Lead time

# PLANNING COLLABORATION

## OVERVIEW – MAIN SCREEN – LINE ITEMS DETAILS

13. Click view details icon to open the item data report of your material.
14. Item data report is the key for the supplier to plan and review the replenishment of Honeywell's stock.
15. Expand the Chart section to view the graphs.

Stock							Process type
Stock on hand		Stock levels		Unit	10 weeks projection		
Quantity	Status	Min.	Max.				
2	On track			EA		Supplier Replenishment	
100	Below minimum	2,000	10,000	EA		Supplier Replenishment	
0	Out of stock	150	300	EA		Supplier Replenishment	

14. Supplier managed inventory details - Supplier managed inventory view

Buyer name: Honeywell - TEST    Customer location: Freeport SPS HGAS    Part no.: 1011027HS-ES    Part description: EYE PROT CLEAR LENS

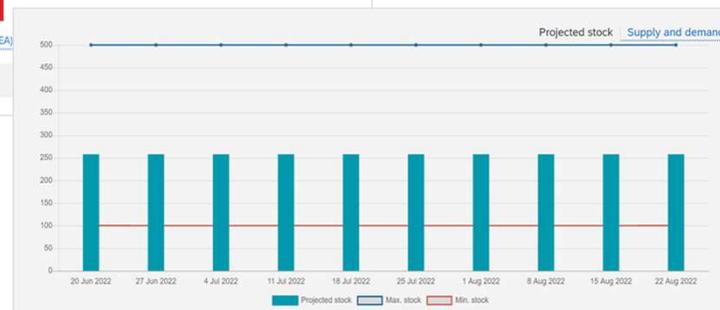
View by: Weekly    Starting from: 07/25

15. > Chart

Stock on hand: 2 (EA)

Key figures

Gross demand



# PLANNING COLLABORATION

## MANAGE REPLENISHMENTS

1. Select **View by** in order to choose between different aggregation modes (Daily, Weekly, Monthly, Quarterly, Yearly). The key figures will be summed accordingly.
2. Specify the date in the **Starting from** field.
3. Press the arrows to navigate through the time periods.
4. Click **Send data** in order to update the purchase orders in Honeywell ERP based on the entered planned shipments.
5. Click on the **pencil symbol** next to the Planned replenishment key figure to switch to edit mode in order to be able to enter the replenishment/supply elements per time bucket.

Supplier managed replenishment details

NALA CLAQ1BUYER2 | Part no. KCCMI01 | Customer Loc

View by: Daily (1) | Starting from: 22 April (2)

Starting from 22 April (3)

Chart

Stock on hand: 3500 (EA) | Part details

Key figures	22 April	23 April
Gross demand		

LOB APJ Buyer 1 - TEST | Part no. PROC-MF-CM-0001 | Customer Location Atlanta

View by: Weekly (1) | Starting from: 22 April (2)

Send Data (3)

Chart

Stock on hand: 458 (EA) | Part details

Key figures	22 April Week 39	29 April Week 40	6 May Week 41
Gross demand			
Net requirement			
Firmed orders			
Previous planned replenishment			
Planned replenishment (5)			
Published replenishment			
In transit			
Target stock			

### Note:

- The pencil is only visible for the time bucket setting as defined by Honeywell which is weekly, also visible key figures are configured when Honeywell define views for each process type (e.g. SMI).
- The blue background color indicates the lead time for this material
- Pressing the pencil button allows you to **enter replenishment order** in the planned replenishment key figure. Typically, the value will lie between the minimum and maximum proposals.

# PLANNING COLLABORATION

## MANAGE REPLENISHMENTS

6. Supplier enters **planned replenishments** in order to get projected inventory within the min/max levels (min/max proposals simplify the determination of quantities).
7. Pressing **Save** button will trigger the recalculation of projected stock (and change colors if status changes). Supplier might want to enter multiple planned replenishments in different time buckets if needed.
8. Clicking the button **Create replenishment order** passes the entered replenishment data over to the replenishment order (RO) screen.
9. Here individual planned replenishment quantities in the different time buckets will result in a separate line item of the replenishment order and can be selected/deselected here before creating the Replenishment Order.
10. Replenishment order field is a mandatory key field to identify the RO & text box is optional
11. Now the order can be created by pressing the **check flag** and
12. Clicking **Create order** button in the upper right corner.
13. This triggers the transfer of the data to the ERP system in the background.

Stock on hand: 458 (EA) | Part details

Key figures	22 April Week 39	29 April Week 40	6 May Week 41	13 May Week 47	20 May Week 48
Gross demand					
Net requirement					
Firmed orders					
Previous planned replenishment					
Planned replenishment		84			

Cancel Save Create replenishment order

---

Create replenishment order

Buyer: LOB APJ Buyer 1 - TEST

Replenishment order \* [ ]

Ship from: New York NY 10001 USA  
Ship to: ATLANTA GA United States

Leave a comment...

Include	Description	Planned ship date	Delivery date	Quantity	Unit	Price
<input checked="" type="checkbox"/>	Manufacturing component	1 Oct	1 Oct	84	EA	USD

Buyer part: PROC-MF-CM-0001 | Supplier part: | Buyer plant: Atlanta(3200)

Cancel Create order

---

Create replenishment order

Buyer: LOB APJ Buyer 1 - TEST

Replenishment order \* RO\_TEST1

Ship from: 100 Ave  
Ship to: ATLANTA GA United States

to get back into green

Include	Description	Planned ship date	Delivery date	Quantity	Unit	Price
<input checked="" type="checkbox"/>	Manufacturing component	1 Oct	1 Oct	84	EA	USD

Buyer part: PROC-MF-CM-0001 | Supplier part: | Buyer plant: Atlanta(3200)

Supplier managed replenishment details

Your replenishment order has been sent. Please click Refresh data to update the table.

TechDronix Part no. FU\_RO\_0001 | Customer Location Werk 0001

# **EXCEL USER INTERACTION**

# EXCEL USER INTERACTION

## CREATE A JOB

Excel Download/ Upload functionality allows suppliers with large number of materials to manage their replenishments in a more efficient way.

From the Home page:

1. Click “...” button and select **Upload/Download** from the drop down.
2. In the Jobs sub-tab click **Create**.
3. In the pop-up select job-type **Replenishment**.
4. Fulfill search criteria and all mandatory fields and click **Save**.
5. Select created Job from the list and click **Run**. You will be transferred to the **Downloads** screen.
6. If report status is **Queued**, click **Refresh Status** in the bottom of the screen, until the status is changed to **Completed**.
7. Download the Job by clicking the icon in the File column and save the file on your computer.
8. Open the downloaded excel report

The screenshot shows the SAP Business Network interface for creating a job. The top navigation bar includes 'Home', 'Enablement', 'Workbench', 'Planning', 'Orders', 'Fulfillment', and 'More'. A 'Create' button is highlighted with a red circle (1). A dropdown menu is open, showing 'Excel Files' and 'Upload/Download' (highlighted with a red box). The 'Create/Edit Job' form has a '\* Name' field, a '\* Type' dropdown set to 'Replenishment' (highlighted with a red circle (3)), and a '\* Customer' field set to 'BP SCC Buyer - TEST'. There are also fields for 'Buyer last modified' and 'Supplier last modified'. A 'Save' button is highlighted with a red circle (4). Below the form is a 'Jobs' table:

Name	Type
RO test	Replenishment
pricealldetailst	Order Confirmation

A 'Run' button is highlighted with a red circle (5). To the right, a file download icon is highlighted with a red circle (8). Below the 'Jobs' table is a 'Downloads' table:

Job Name	Type	Last Run	Status	File
RO test	Replenishment	30 Oct 2019 2:04:39 AM	Completed	

A 'Refresh Status' button is highlighted with a red circle (6), and a 'Completed' status label is highlighted with a red box (6). A 'Download' icon in the 'Downloads' table is highlighted with a red circle (7).

# EXCEL USER INTERACTION

## MANAGE REPLENISHMENTS

- Suppliers can edit the information in the downloaded Excel for **Replenishment order No.**
- and **Planned Replenishment quantities**. The fields are highlighted in blue.
- Suppliers can edit the data and enter details with **daily time buckets**.

Unit	Replenishment order No.	Unit price	Currency	Planned acceptance days	Key figures	3 Jul	4 Jul	5 Jul	6 Jul
EA	34RO	2.56	USD		Gross demand				
					Net demand				
					Order				
					Previous Planned Replenishment				
					Planned Replenishment	19			
					Published Replenishment				
					In transit	0	0	0	0
					Target stock				
					MINIMUM_INVENTORY	0	0	0	0
					MAXIMUM_INVENTORY	0	0	0	0
					Projected stock	400	400	400	400
					Published Projected Stock	400	400	400	400

### Note:

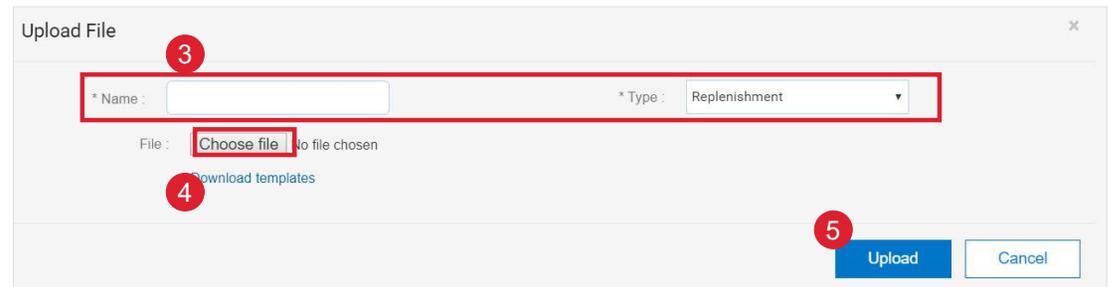
- Suppliers need to submit an RO with at least one time bucket populated within the planning horizon of that item's Honeywell settings. If not, the item fails.
- For Replenishment order no. use names with no more than 12 alphanumeric characters.

# EXCEL USER INTERACTION

## SUBMIT REPLENISHMENTS

From the Upload/Download screen:

1. Click on **Uploads** sub-tab.
2. Press **Upload** button. Pop-up window will appear.
3. Enter a meaningful job name and select Type **Replenishment**.
4. Browse / Choose / Open file > select required excel sheet.
5. Press **Upload** button. The status will notify about the success of the upload.



**Note: 6.** If upload **failed** or was **completed with errors**, download the Log and fix the errors. Then, reupload the file following the steps described above.

This screenshot shows a table with columns for 'Type', 'Last Uploaded', 'Status', 'File', and 'Log'. A row is shown with 'Replenishment' in the 'Type' column, '30 Oct:' in the 'Last Uploaded' column, and 'Failed' in the 'Status' column. The 'Status' and 'Log' columns for this row are highlighted with red boxes and a circled '6'.

Type	Last Uploaded	Status	File	Log
Replenishment	30 Oct:	Failed	↓	↓

# PORTAL USER INTERACTION

## REVIEW REPLENISHMENT

From Homepage:

1. Click on **Fulfillment > Sales Orders**.
2. If the corresponding Purchase Order has not been sent back from ERP and linked to the Replenishment Order the routing status is **Sent** and Status **New**.
3. Once the SAR is received and associated with the Replenishment Order the Routing status is switched to **Acknowledged** with the linked SAR visible in column Order Number.
4. The reference to the replenishment order is specified in the subsequent SAR header.

The screenshot displays the SAP Business Network Enterprise Account interface. The navigation menu shows 'Fulfillment' and 'Sales Orders' highlighted with a red box and a red circle '1'. Below, a table of Sales Orders is shown with 'Routing Status' and 'Status' highlighted for two entries with red boxes and red circles '2' and '3'. The first entry has 'Sent' routing status and 'New' status. The second entry has 'Acknowledged' routing status and 'New' status. Below the table, the 'Reference Document Details' section shows 'Document Type: ReplenishmentOrder' and 'Document Number: 1RO190328', with the document number highlighted by a red box and a red circle '4'.

Sales Order ID	Sales Order Type	Customer	Date	Routing Status	Status	Order Number	Order Status	Actions
RO FU 11	Replenishment	TechDronix	27 Sep 2018 2:11:28 PM	Sent	New			Actions
FU_RO_C2	Replenishment	TechDronix	27 Jul 2018 3:16:21 PM	Acknowledged	New	4500207287	New	Actions

Reference Document Details  
Document Type: ReplenishmentOrder  
Document Number: 1RO190328

**Note:** From here **Order Collaboration** flow can be followed.

# PORTAL USER INTERACTION

## CANCEL REPLENISHMENT

Replenishment order can be cancelled only as a full documents (separate lines cannot be cancelled individually).

From the Sales Orders Screen:

1. Use search filters to identify the desired replenishment order (Sales Order ID).
2. Once order appears below, click **Actions** and choose **Cancel Order** from the dropdown.

Status updates can be reviewed from the Sales Orders screen:

- Go to **Outbox > Sales Order** for Replenishment Order
- Go to **Orders > Orders & Releases** for subsequent purchase order

The screenshot illustrates the process of cancelling a replenishment order. It shows a search filter section with a red '1' indicating the first step: filtering by Sales Order ID (1810111600). Below this is a table of Sales Orders with columns for Sales Order ID, Sales Order Type, Routing Status, and Status. A red '2' indicates the second step: clicking the 'Actions' dropdown for a specific order, which reveals a 'Cancel Order' option. A separate window shows a 'Purchase Order (+ Cancelled)' with details like amount and version.

Sales Order ID	Sales Order Type	Routing Status	Status
1RO190328	Replenishment	Acknowledged	Cancelled
1RO190328	Replenishment	Acknowledged	Obsoleted

Purchase Order  
(+ Cancelled)  
4000207939  
Amount: \$380.00 USD  
Version: 1 (Previous Version)

# **SHIPPING AND RECEIVING IN SMI**

# SHIPPING AND RECEIVING IN SMI

## REVIEW CREATED ASN /SHIPPING NOTIFICATION

- Once the replenishments have been executed by Supplier, the Purchase Order gets updated, and Supplier must perform ASN, then Honeywell will do the GR
- For detailed ASN & GR process refer Order Collaboration guide.
- Supplier can also view information regarding ASN & GR from key figure rows of ASN,GR in the main screen of selected material

Stock on hand: 100 (EA)   Part details						
Key figures	5 Mar	6 Mar	7 Mar	8 Mar	9 Mar	10 Mar
Gross demand						
Net requirement						
Firmed orders						
Planned shipment						
In transit						
Target stock						
Projected stock	100	100	100	100	100	100
Minimum proposal	-15	-15	-15	-15	-15	-15
Maximum proposal	75	75	75	75	75	75
Total shipment						
ASN received						
Days' supply (SMI)	364	363	362	361	360	359
Order received						

# APPENDIX

# PLANNING COLLABORATION

## OVERVIEW - SEARCH FILTERS DESCRIPTION

Field	Description
Customer	Customer identification.
Customer Part Number	Customer's material number.
Supplier Part Number	Vendor's material number.
Customer Location	Customer Plant.
Planner Code	Customer planner identification.
Show Unique Part and Plant	Once checked, the result screen will show key figures for both supplier managed inventory and forecast data.
Part Category	Part Category as aligned with the customer.
Line of Business	Line of Business as aligned with the customer.
Product Family	Product Family as aligned with the customer.
Product Sub-Family	Product Sub-Family as aligned with the customer.
Program Code	Program Code of Business as aligned with the customer.
Part Type	Part Type as aligned with the customer.
Process Type	Specifies whether the part is using Planned Shipment for SMI (can be combined with Forecast).
Part Status	Specifies if the part is active or inactive.
Customer View	Honeywell are allowed to create views, referred to as custom views, for planning processes and set conditions for their display

# PLANNING COLLABORATION

## OVERVIEW – CUSTOMER DEFINED ATTRIBUTES

This is the list of fields for defined attributes:

1. Purchasing Info Record
2. Lot Size
3. Outline Agreement
4. Last PO No.
5. Sub Process Type
6. Planned Delivery Time
7. Rounding Value
8. Info Category
9. Batch/Expiry Date

Customer defined attributes

1	Purchasing Info Record	<input type="text"/>	6	Planned Delivery Time	<input type="text"/>
2	Lot Size	<input type="text"/>	7	Rounding Value	<input type="text"/>
3	Outline Agreement	<input type="text"/>	8	Info Category	<input type="text"/>
4	Last PO No	<input type="text"/>	9	Batch/Expiry Date	<input type="text"/>
5	Sub Process Type	<input type="text"/>			

# PORTAL USER INTERACTION

## KEY FIGURES

Field	Description	Source
Gross demand	Forward-looking consumption.	Honeywell ERP
Firmed orders	Honeywell confirmed orders within the firm zone.	Ariba Network calculation
Previous planned shipment	The total quantity of previously saved planned shipments, within each of the user-selected time bucket.	Ariba Network
Planned shipments	The editable field where supplier enters shipments quantity, within each of the user-selected time bucket.	Supplier input
Published shipments	The total quantity of created shipments orders, within each of the user-selected time bucket.	Ariba Network
In transit	Dispatched quantity not yet received at customer.	Ariba Network calculation
Planned projected stock (RO)	Stock on hand – gross demand + (previous planned shipment + planned shipment).	Ariba Network calculation
Published projected stock (RO)	Stock on hand – gross demand + published shipment.	Ariba Network calculation
Total shipment	Based on total receipts by Honeywell for each time bucket.	Ariba Network calculation
ASN received	Quantity received by Honeywell based on shipments, within each of the user-selected time bucket.	Ariba Network calculation
Order received	Quantity received by Honeywell based on orders, within each of the user-selected time bucket.	Ariba Network calculation

# EXCEL USER INTERACTION

## MANAGE PLANNED SHIPMENTS – COLUMNS DESCRIPTION 1

Field	Description
Customer ANID	Customer ANID to which the file relates.
Customer Name	Customer name to which the file relates.
Customer part no.	Honeywell's part number for material
Supplier part no.	Seller's part number for the material
Description	Short text description of the material
Location	The location of the customer's site
Location Name	The name given by the customer to their location
Lead time	Delivery Lead-time (the sum of delivery and goods receipt processing times)
Last updated	Date of last customer upload of planning (inventory and demand) data from their ERP to the Ariba Network
Line of business	Additional specification data defined by Honeywell
Product family	Additional specification data defined by Honeywell
Internal program code	Additional specification data defined by Honeywell
External program code	Additional specification data defined by Honeywell
Part category	Additional specification data defined by Honeywell
Part type	Additional specification data defined by Honeywell
Stock on hand	The amount of stock held at the time of last Honeywell upload
Minimum Stock	The minimum required stock level
Maximum Stock	The maximum required stock level
Minimum Days of Supply	Days coverage based on minimum inventory and projected stock figures
Maximum Days of Supply	Days coverage based on maximum inventory and projected stock figures