B0141 - Auto Delete Reservation

SAP Functional Specification Document
Enhancement

Object ID	B0141
Object Type	Enhancement
System	☑ SAP ☐ Satellite App: {Application Name}
Object Title	Auto Delete Reservation
Stream Area	☐ Sales & Promotion ☐ Distribution ☐ Warehouse ☐ Procurement ☑ Production Planning ☐ Quality Management ☐ Plant Maintenance ☐ Finance Accounting ☐ Finance Controlling ☐ Project System ☐ Success Factor

	☐ Master Data Governance
Complexity	☑ Low
	☐ Medium
	☐ High
	☐ Very High

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.

1 Document Control Information

1.1 Document Edit History

Version	Date	Additions/Modifications	Prepared/Revised by
Version 1	24 Feb 2025	Initial Draft	Fanny Claudia

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	Ferdy Arya Sukmana	IT Lead
Signature	@Ferdy Arya Sukmana	Date: 28 Maret 2025
Reviewed By		
Signature		Date:

Approved By:

The "Approved By" signature indicates the individual(s) who approved this document for content and clarity, and to the

	Name	**Title/Role** <Designation, Department>
Approved By	Agnes	PP Business Process Lead
Signature	@Agnes A	Date: 7 April 2025
Approved By		
Signature		Date:

2 Functional Specification Details

2.1 Impacted Sub-Process

B-020-010 - Material Staging Process:

```
https://app-
sgp.signavio.com/p/hub/model/eccdbcffddcc47c39e582b690cda8
b90
```

2.2 Assumption

1. Auto Delete Reservation will be done by scheduled Job.
2. The auto job will automatically delete the Reservation Data based on the maximum date that alreaady maintained in the master data (tcode).

2.3 Risks

Unable to do auto delete reservation.

3 Operational Considerations

Outline the requirements for the development 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

MASTER DATA Custom : ZPPT_DEL_RESV

3.2 Trigger

1. Based on master data that already maintained in ZPPT_DEL_RESV.

3.3 Dependencies

3.3.1 Environment / Configuration

3.3.2 Development Dependencies

1. Need to build the MASTER DATA TCODE first before creating the auto delete job.

3.3.3 Run / Execution Dependencies

1. Need to maintain the master data in MASTER DATA TCODE first.
2. Need to already define the frequency / parameter for Auto Job Delete Reservation.

3.4 Expected System Load

1. The enhancement is anticipated to run daily every morning (4 a.m).
2. Posibility to generate multiple delete reservation in one time.

4 Functional Design Considerations

4.1 Detailed Description of Enhancement

Transaction Automation or Custom Program

Use Case	Steps	Acceptance Criteria	Output
TCODE 1 (to be tcode proposed by ABAP): As IT Support, I want to maintain residence time of material reservation. As production supervisor I want material reservation which older	1. Input data: a. Material Type b. Plant c. Sloc d. Movement Type e. Residence Time	1. All the data already maintain and reflected in the system.	1. Data maintained. 2. Log of changes.

than residence time should be deleted.			
AUTO JOB DELETE: As production supervisor I want material reservation which older than residence time should be deleted. As IT support I want to schedule job to auto	1. Define the frequency and parameter for the scheduled job. 2. Running the job based on scheduled time.	1. All the data already maintain and reflected in the system. 2. Job Executed sucessfully	1. Data saved. 2. Log of changes.

delete the reservation based on residence time that already maintained in TCODE 1.				

4.2 Access Method or Path

Execution:

☑ Custom Transaction Code   : TBC
☐ Custom Fiori App.   : _____
☐ Standard Transaction Code : _____
☐ Standard Fiori App.   : _____
☐ Other   : _____

4.3 Required Custom Table

Table Name: ZMMT_M_RSVREQ_AA

Table Description: MM: Master Setting for Auto Close Reservation Job

Field Description	Type (text or numeric)	Maximum field length	Value Restrictions?	Source table
Movement Type	CHAR	3	Only movement	T158B - Check

			types maintained in table **T158B** with transaction code (TCODE) = 'MB21' (Create Reservation) are allowed.	Table: Movement Type for Transaction Code
Material Type	CHAR	4	Validation should allow input only for material types maintained in table **T134**	T134 - Material Types

Days	NUMC	3	Should be a numeric value and can be 0	

Audit Fields are needed, please include structure **ZZXS_CHLOG** to the **ZMMT_M_RSVREQ_AA** table

4.4 Data Flow

https://app-sgp.signavio.com/p/hub/model/eccdbcffddcc47c39e582b690cda8b90
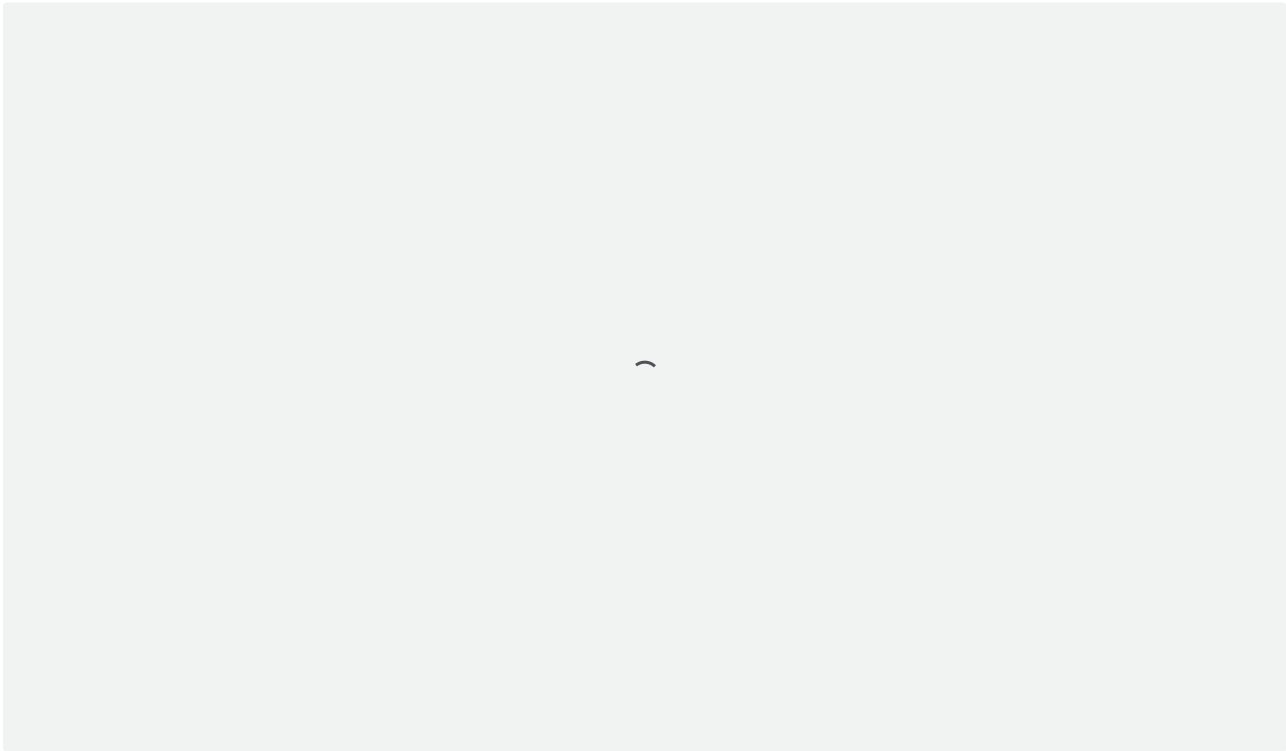
4.4.1 Input Parameters

1. Parameter for Auto Job Delete Reservation is taken from table **ZMMT_M_RSVREQ_AA** based on MTART, BWART, then READ the DAYS value for the reference of when the delete reservation should run.
2. Job Close Outstanding Actual Reservation
   - Reservation

- Requirement Date
- Movement Type
- Plant

4.4.1.1 Screen Flow

4.4.1.2 Screen Layout and Field List

- Menu – Master Setting for Auto Close Reservation Job

Field Label	Data Type / Field Size	Mandatory	Range Required	Reference Table & Field Name	Field Control Type	Display Format
Movement Type	CHAR (3)	Yes	No	T158B - Check Table: Movement Type for Transaction Code	Only movement types maintained in table **T158B** with transaction code (TCODE) = 'MB21' (Create Reservati	[Mvt] - [Mvt Description]

					on) are allowed.	
Material Type	CHAR (4)	Yes	No	T134 - Material Types	Validation should allow input only for material types maintained in table **T134**	[Material Type] – [Material Type Description]
Days	NUMC (3)	Yes	No		Should be a numeric value (3 digits maximum) and can be 0	

- Job Close Outstanding Actual Reservation

Field Label	Data Type / Field Size	Mandatory	Range Required	Reference Table & Field Name	Field Control Type	Display Format
Reservation	NUMC (10)	No	No	I_ReservationDocumentHeader - Reservation	Validate against table **I_ReservationDocumentHeader** ensuring that the reservation exists	
Requirement Date	CHAR (4)	Yes if Reservation is	No	I_ReservationDocumentItem - MatlCompReq	Apply filter when selecting range of **Require**	

		blank		uiremen tDate	**ment Date** from the **Reservat ion Request Detail** table	
Move ment Type	CHA R (3)	No	No	I_Reser vationD ocumen tHeader – Goods Movem entType	Apply filter when selecting range of **Moveme nt Type** from the **Reservat ion Request Header** table	

Plant	CHAR (4)	No	No	I_ReservationDocumentItem - Plant	Apply filter when selecting range of **Plant** from the **Reservation Request Detail** table	

4.4.1.3 Screen Layout

- Menu - Master Setting for Auto Close Reservation Job

- **Movement Type** : validate only movement types maintained in table **T158B** with transaction code (TCODE) = 'MB21' (Create Reservation) are allowed.
- **Material Type** : validation should allow input only for material types maintained in table **T134**
- **Days** : Should be a numeric value (3 digits maximum with value 999) and can be 0

Therefore, here are the LOGIC for CREATE and EDIT:

	Field / Kolom	Destination Data	CREATE	UPDATE
1	Movement Type	ZMMT_M_RSVREQ_AA - BWART	**BROWSE:** GET DATA FROM T158B with transaction code (TCODE) = 'MB21 FORMAT: BWART - BWTEXT **(INPUT)**	**READ ONLY**
2	Material Type	ZMMT_M_RSVREQ_AA - MTART	**BROWSE:** GET DATA FROM T134 FORMAT: MTART -	**READ ONLY**
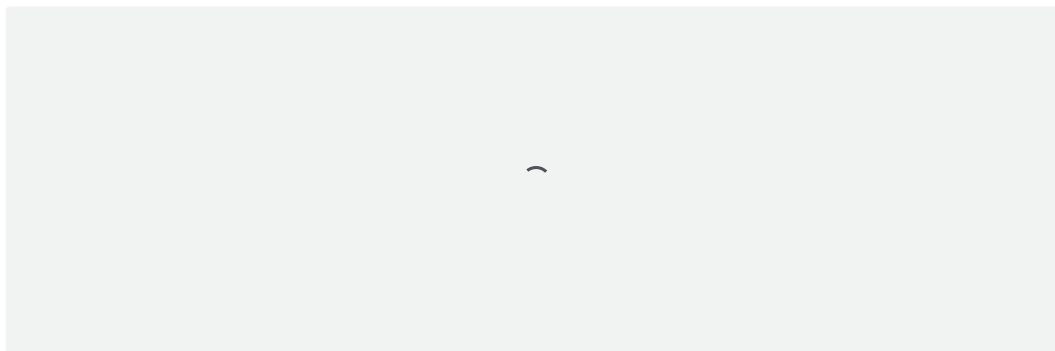
		MTEXT (INPUT)	
3	Days	ZMMT_M_RSVREQ_AA - DAYS	Input by user **VALIDATE: SHOULD BE NUMBER (INPUT)**	Input by user **VALIDATE: SHOULD BE NUMBER (INPUT)**

NOTES:

There will be a DELETE BUTTON in the up of the screen. User can select the row data that want to be deleted. After delete, the row data will be hide from the display screen.

4.4.1.4 Output Parameter

- Job Close Outstanding Actual Reservation
  - Screen Parameter :

  - **Reservation** : default = ' ' (blank)
  - **Requirement Date** : default = Today's Date

- **Movement Type** : default = ' ' (blank)

  If entered, validate the authorization (see authorization checking in **5.1 Security Requirements**) and ensure that the Movement Type must be maintained in the Master Setting for Auto Close Reservation Job table

  SELECT * FROM ZMMT_M_RSVREQ_AA

     WHERE Movement Type = [Entered Movement Type]

  IF NOT FOUND

     THEN Error "Movement Type [Entered Movement Type] not maintained in Master Setting Job Auto Close, check your input"

- **Plant** : default = ' ' (blank)

  If entered, validate the authorization (see authorization checking in **5.1 Security Requirements**)

- **Clear** → clear / reset parameter (Reservation & Requirement Date)

- **Execute** → go to next step

- Steps :

  - If Reservation Exist in Reservation Request Table Get Reservation Request Number, Reservation Number & validate status based on input parameters

    SELECT

       Reservation Request,

       Reservation Number (1 step),

       Reservation Number (2 step)

    FROM ZMMT_T_RSVREQ_H H **JOIN** I_ReservationDocumentItem I

       ON H.Reservation = I.Reservation (Reservation)

    WHERE Reservation IN [entered Reservation]

       AND Requirement Date < [entered Requirement Date] - [**Days** from **Master Setting for Auto Close Reservation Job**]

       AND Status **IN** STVARV - ZMM_RSV_CLSD_STATUS

       AND Deletion Flag (I.ReservationItmIsMarkedForDeltn) = ' ' (Reservation Deletion Flag is not set)

       AND Final Issue (I.ReservationItemIsFinallyIssued) = ' ' (Final Issue is not set / Reservation still Open)

       AND Movement Type (I.ReservationItem-GoodsMovementType) = [entered

Movement Type]

    AND Plant (I.ReservstionItem-Plant) = [entered Plant]

- Else if Reservation not Exist in Reservation Request Table, validate status based on input parameters

SELECT Reservation

FROM I_ReservationDocumentHeader H **JOIN** I_ReservationDocumentItem I
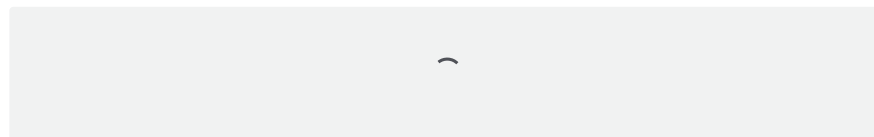
    ON H.Reservation = I.Reservation

WHERE Reservation IN [entered Reservation]

    AND I.MatlCompRequirementDate < [entered Requirement Date] - [**Days** from **Master Setting for Auto Close Reservation Job**]

    AND Status **IN** STVARV - ZMM_RSV_CLSD_STATUS

    AND Deletion Flag (I.ReservationItmIsMarkedForDeltn) = ' ' (Reservation Deletion Flag is not set)

    AND Final Issue (I.ReservationItemIsFinallyIssued) = ' ' (Final Issue is not set / Reservation still Open)

    AND Movement Type (I.ReservationItem-GoodsMovementType) = [entered Movement Type]

    AND Plant (I.ReservstionItem-Plant) = [entered Plant]

- Get **Days** from **Master Setting for Auto Close Reservation Job**

SELECT Days **FROM** ZMMT_M_RSVREQ_AA

WHERE Movement Type = I_ReservationDocumentHeader-GoodsMovementType (Movement Type)

AND Material Type =

    SELECT ProductType **FROM** I_Product P **JOIN** I_ReservationDocumentItem I **ON** P.Product = I.Product

    WHERE I.Reservation = [Reservation Number]

- Check if the delivery has already been generated & open for the reservation

SELECT D.DeliveryDocument, H.OverallGoodsMovementStatus **FROM** I_DeliveryDocumentItem D

JOIN I_DeliveryDocument H **ON** D.DeliveryDocument = H.DeliveryDocument

    WHERE D.Reservation = ZMMT_T_RSVREQ_H - Reservation **OR** I_ReservationDocumentHeader-Reservation

IF FOUND AND H.OverallGoodsMovementStatus **NOT** 'C' (Completed)

   THEN Skip Process (Resevation cannot be deleted)

ELSE IF FOUND AND H.OverallGoodsMovementStatus = 'C' (Completed)

   THEN go to step **Update Final Issue Flag**

ELSE IF NOT FOUND THEN go to step **Flag Delete Reservation**

- Check if the delivery has already been generated but partially posted for the reservation

  Update Final Issue Flag with **I_RESERVATIONDOCUMENTTP-UPDATE**

  Do for each Reservation Number

  - **I_RESERVATIONDOCUMENTTP-UPDATE**
    - ReservationDocument
      - RESERVATION = ZMMT_T_RSVREQ_H-Reservation Number **OR** I_ReservationDocumentHeader-Reservation
    - Modify
      - ReservationItem = I_ReservationDocumentItem-ReservationItem (Line Item Reservation)
      - ReservationItemIsFinallyIssued = 'X' (Marked for Final Issued)

- Flag Delete Reservation with **I_RESERVATIONDOCUMENTTP-UPDATE**

  Do for each Reservation Number

  - **I_RESERVATIONDOCUMENTTP-UPDATE**
    - ReservationDocument
      - RESERVATION = ZMMT_T_RSVREQ_H-Reservation Number **OR** I_ReservationDocumentHeader-Reservation
    - Modify
      - ReservationItem = I_ReservationDocumentItem-ReservationItem (Line Item Reservation)
      - ReservationItmIsMarkedForDeltn = 'X' (Marked for Deletion)

- if Reservation Exist in Reservation Request Table, update Status & Reservation Number in the table **Reservation Request Header**

  UPDATE ZMMT_T_RSVREQ_H

  SET

     Status = 'EX' - **Expired**

  WHERE Reservation Request = [Reservation Request]

5 Security and Controls

5.1 Security Requirements

Authorization Object	Authorization Field
M_MRES_BWA (Authorization for Reservations)	**ACTVT** → Activity (06 = Delete) **BWART** → Movement Type (ex: 201, 261, 311,...) **WERKS** → Plant

5.2 Auditing and Control Requirements

6 Functional Unit Test Scenarios

6.1 Test Scenario / Data

Step #	Test Type	Scenario Title	Steps Performed	Expected Results	Actual Results
1	Positive Testing	Master Setting for Auto Close	1. Input Movement Type	Record inserted with success	

		Reservation Job - Create New Record without duplication	2. Input Material Type 3. Input Days	message : Record was created successfully	
2	Positive Testing	Master Setting for Auto Close Reservation Job – Change Record without duplication	1. Change Days	Record updated with success message : Record was updated successfully	
3	Positive	Master Setting	1. Select Record	Record deleted	

	Testing	for Auto Close Reservation Job - Delete Record	2. Click Delete	with success message : Record was deleted successfully	
4	Negative Testing	Master Setting for Auto Close Reservation Job - Create New Record with duplication	1. Input Movement Type 2. Input Material Type 3. Input Days ex : same input with point 1	Record should not be inserted with error message : Record with the same key already exists	
5	Negative	Master Setting for Auto	1. Change Material Type	Record should not be updated	

		Testing	Close Reservation Job - Change Record that cause duplication	ex : same input with point 1	with error message : Record with the same key already exists	
6	Positive Testing	Job Close Outstanding Actual Reservation without any open delivery				

7	Negative Testing	Job Close Outstanding Actual Reservation with an open delivery			

6.2 Error Handling, Validation, Correction and Recovery

No.	Exception Desc.	Mess. Type	Language	Message Text (50 Characters only)
1	Duplicate Data	E - Error	EN	Record with the same key already exists
			ID	Data dengan paremeter yang sama sudah ada
2	Movement Type not	E - Error	EN	Movement Type [Entered Movement Type] not

				maintained in Master Setting Job Auto Close, check your input
	maintained in Master Setting Job Auto Close Reservation		ID	Movement Type [Entered Movement Type] belum dimaintain di Master Setting Job Auto Close, cek data yang di-input
3	Master data created successfully	I - Information	EN	Record was created successfully
			ID	Data berhasil terbentuk
4	Master data updated successfully	I - Information	EN	Record was updated successfully
			ID	Pembaruan data berhasil dilakukan
5	Master data deleted	I - Infor	EN	Record was deleted successfully

successf ully	matio n	ID	Delete data berhasil dilakukan

7 Attachments and Documentation