Functional Specification Document

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# 1. Document Information

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| --- | --- |
| Field | Value |
| Document Title | Stock Report - Monthly by Material, Plant, Warehouse, and Storage Location |
| Project Name | SAP Stock Reporting |
| Client Name | PWC AI Asset |
| Prepared By (Author, Department) | SAP MM Functional Consultant |
| Document Version & Date | 1.0 / 01.05.2025 |

# 2. Introduction

This document outlines the functional requirements and design for generating a monthly stock report in SAP MM. The report aims to provide detailed stock quantity and value information per material, plant, warehouse, and storage location, supporting inventory monitoring, reconciliation, and monthly closing activities. The intended audience includes SAP MM consultants, inventory analysts, finance controllers, and other stakeholders involved in inventory management and reporting.

# 3. Business Requirement Overview

The business requires a monthly stock report in SAP MM that displays stock quantity and value for each material, plant, warehouse, and storage location. The objective is to facilitate accurate inventory monitoring, reconciliation, and support monthly closing activities. The report should include key stock details, allow filtering by relevant criteria, and be accessible only to authorized users. The solution aims to address the need for comprehensive, timely, and accurate stock information across the organization.

# 4. Business Process Flow

Start

-> Monthly closing activities completed

-> Extract stock data from SAP tables (MARD, MARC, MBEW, MKPF/MSEG, T001L, T320, MCHB)

-> Apply report filters (Plant, Material Number Range, Storage Location, Material Type, Month/Year)

-> Generate ALV Grid report with stock details (Material, Plant, Warehouse, Storage Location, UoM, Quantities, Stock Value)

-> Export report to Excel/PDF (if required)

-> End

# 5. Functional Scope

1. In-Scope items

1.1. Generation of a monthly stock report in SAP, displaying stock quantity and value per material, plant, warehouse, and storage location.

1.2. Inclusion of all materials maintained in SAP MM across various plants and storage locations, including warehouses.

1.3. Report columns to include: Material Number, Material Description, Plant, Warehouse Number (if applicable), Storage Location, Unit of Measure, Stock Quantity (Unrestricted, Blocked, Quality Inspection), Valuated Stock, Stock Value, Valuation Type (if applicable), and Month/Year.

1.4. Report filters to allow selection based on Plant, Material Number Range, Storage Location, Material Type, and Month and Year.

1.5. Output of the report in ALV Grid format with export options to Excel and PDF.

1.6. Extraction of data from SAP tables: MARD, MARC, MBEW, MKPF/MSEG, T001L, T320, and MCHB (if batch management is active).

1.7. Restriction of report access to users with appropriate roles such as Inventory Analyst, MM Power User, and Finance Controller.

1.8. Deployment of the report using ABAP in SAP GUI or Fiori.

1.9. Assumption that monthly closing activities are completed before report execution to ensure data accuracy.

2. Out-of-Scope items

2.1. Real-time or daily stock reporting; the report is strictly for monthly stock details.

2.2. Inclusion of materials or stock not maintained in SAP MM.

2.3. Data extraction from non-listed SAP tables or external systems.

2.4. Custom authorization roles beyond those specified (Inventory Analyst, MM Power User, Finance Controller).

2.5. Automation or scheduling of the report execution; the report is to be executed manually post monthly closing.

2.6. Any report output formats other than ALV Grid, Excel, or PDF.

2.7. Handling of incomplete or ongoing monthly closing activities.

2.8. Development or modification of Fiori or SAP GUI infrastructure beyond deploying the report.

# 6. Functional Solution Approach

The business requirement for generating a monthly stock report will be addressed by developing a custom ABAP report that extracts and consolidates stock data from core SAP MM tables. The report will aggregate stock quantities and values per material, plant, warehouse, and storage location, ensuring that all relevant stock types (unrestricted, blocked, quality inspection) and valuation details are included. Users will be able to filter the report based on plant, material number range, storage location, material type, and month/year, allowing for targeted analysis. The output will be presented in an ALV Grid format, providing interactive features and export options to Excel and PDF for further processing. Data accuracy will be ensured by executing the report only after monthly closing activities are completed. Access to the report will be restricted to authorized users with appropriate roles, such as Inventory Analyst, MM Power User, and Finance Controller.

# 7. Functional Requirements & Business Rules

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Requirement ID | Requirement Description | Business Rule | Priority | Comments |
| FR-01 | Report must display monthly stock details per material, plant, warehouse, and storage location | Only materials maintained in SAP MM are included; data is aggregated by month/year and organizational levels | High |  |
| FR-02 | Report columns must include Material Number, Description, Plant, Warehouse, Storage Location, UoM, Stock Quantities (Unrestricted, Blocked, QI), Valuated Stock, Stock Value, Valuation Type, Month/Year | All listed columns must be present in the output; Valuation Type and Warehouse Number are shown if applicable | High |  |
| FR-03 | Report must allow filtering by Plant, Material Number Range, Storage Location, Material Type, Month/Year | Filters must restrict data retrieval and display according to user input | High |  |
| FR-04 | Report output must be in ALV Grid format with export options to Excel and PDF | ALV Grid must support standard SAP export functionalities | Medium |  |
| FR-05 | Data must be sourced from MARD, MARC, MBEW, MKPF/MSEG, T001L, T320, and MCHB (if batch management active) | Data extraction logic must join and aggregate data from these tables as per reporting requirements | High |  |
| FR-06 | Report must be accessible only to authorized users (Inventory Analyst, MM Power User, Finance Controller) | Authorization checks must be implemented to restrict access based on user roles | High |  |
| FR-07 | Report should be executed after monthly closing activities | Users must ensure monthly closing is complete before running the report to guarantee data accuracy | Medium |  |
| FR-08 | Report must be developed in ABAP and deployed in SAP GUI or Fiori | Solution must be compatible with SAP GUI and Fiori environments | Medium |  |

# 8. Interfaces & Integration

No interfaces are defined for this report as per the provided information.

# 9. Output

|  |  |  |  |
| --- | --- | --- | --- |
| Report/Output Name | Format/Layout | Destination | Purpose/Description |
| Monthly Stock Report | ALV Grid | SAP GUI/Fiori | Provides monthly stock details per material, plant, warehouse, and storage location for inventory monitoring, reconciliation, and monthly closing activities. |
| Monthly Stock Report (Export) | Excel, PDF | User Download | Enables users to export the ALV Grid report to Excel or PDF for further analysis and documentation. |

# 10. User Interface Requirements

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Screen/Field Name | Field Type | Default Value | Mandatory (Y/N) | Business Purpose/Validation |
| S\_PLANT | Select-Option | None | N | Filter report data by Plant. |
| S\_MATNR | Select-Option | None | N | Filter report data by Material Number Range. |
| S\_LGORT | Select-Option | None | N | Filter report data by Storage Location. |
| S\_MTART | Select-Option | None | N | Filter report data by Material Type. |
| P\_MONTH | Parameter | Current Month | Y | Specify the Month for the report. |
| P\_YEAR | Parameter | Current Year | Y | Specify the Year for the report. |
| ALV Grid Output | Output Display | N/A | N | Display report results in ALV Grid format with export options to Excel and PDF. |

# 11. Authorization & Security

|  |  |  |  |
| --- | --- | --- | --- |
| Role/Profile | Authorization Object | Access Level | Description |
| Inventory Analyst | [To Be Filled] | [To Be Filled] | Access to view and export monthly stock report data. |
| MM Power User | [To Be Filled] | [To Be Filled] | Access to view and export monthly stock report data. |
| Finance Controller | [To Be Filled] | [To Be Filled] | Access to view and export monthly stock report data. |

# 12. Error Handling & Notifications

1. The report should notify the user if no data is found for the selected filters.

2. The report should display an error message if mandatory filter criteria (such as Plant or Month/Year) are missing.

3. The report should inform the user if they do not have the required authorization to access the report.

4. The report should display a notification if monthly closing activities are not completed, which may impact data accuracy.

# 13. Assumptions & Dependencies

1. The report will be developed using ABAP and deployed in SAP GUI or Fiori.

2. Monthly closing activities are completed before report execution to ensure data accuracy.

# 14. Test Scenarios

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | Objective | Input Data | Expected Output | Actual Result/Status | Sign-off/Comments |
| TC01 | Generate report for a specific plant and month | Plant: 1000, Month: 04/2025 | ALV Grid with stock details for all materials in plant 1000 for April 2025 | [To Be Filled] |  |
| TC02 | Filter report by material number range | Material Number: 100000-100100, Plant: 1000, Month: 04/2025 | ALV Grid with stock details for specified material range in plant 1000 for April 2025 | [To Be Filled] |  |
| TC03 | Filter report by storage location | Plant: 1000, Storage Location: 0001, Month: 04/2025 | ALV Grid with stock details for all materials in storage location 0001 for April 2025 | [To Be Filled] |  |
| TC04 | Filter report by material type | Material Type: ROH, Plant: 1000, Month: 04/2025 | ALV Grid with stock details for all ROH materials in plant 1000 for April 2025 | [To Be Filled] |  |
| TC05 | Export report to Excel | Any valid filter selection | Excel file generated with report data | [To Be Filled] |  |
| TC06 | Export report to PDF | Any valid filter selection | PDF file generated with report data | [To Be Filled] |  |
| TC07 | No data found for selected filters | Plant: 9999, Month: 01/2020 (assuming no data exists) | User receives notification: "No data found for the selected criteria." | [To Be Filled] |  |
| TC08 | Missing mandatory filter input | No Plant or Month/Year entered | User receives error message: "Please enter mandatory filter criteria (Plant, Month/Year)." | [To Be Filled] |  |
| TC09 | User without authorization attempts to access report | User with insufficient roles | User receives error message: "You do not have authorization to access this report." | [To Be Filled] |  |
| TC10 | Monthly closing not completed | Attempt to run report before monthly closing activities are done | User receives notification: "Monthly closing activities are not completed. Data may not be accurate." | [To Be Filled] |  |

# 15. Sign-Off

|  |  |  |  |
| --- | --- | --- | --- |
| Role | Name | Signature | Date |
| Prepared By | SAP MM Functional Consultant |  | 01.05.2025 |
| Approved By |  |  |  |
| Client Sign-Off |  |  |  |

Document generated by PWC AI-powered ABAP Func Spec Assistant.