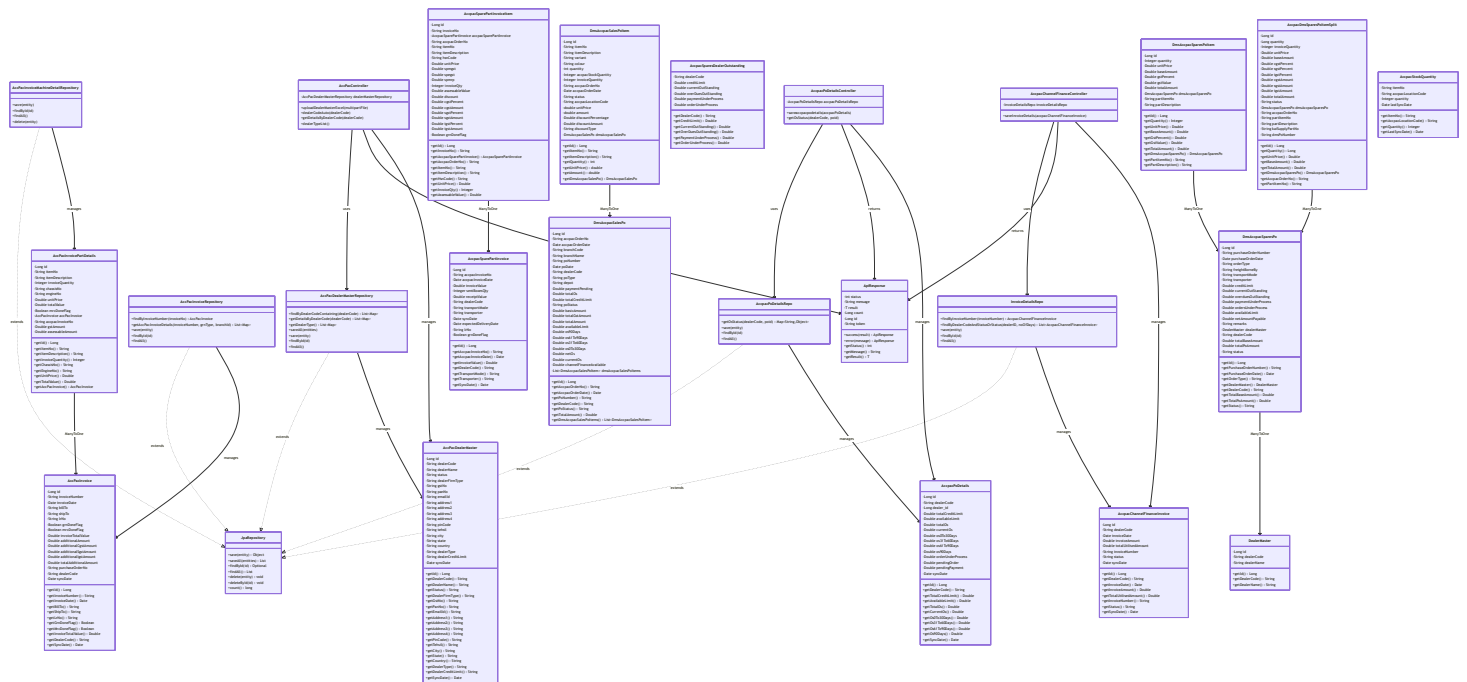


KUBOTA ACCPAC Module - UML Class Diagram



ACCPAC Module Overview

The **ACCPAC Module** is responsible for integrating with the ACCPAC ERP system in the KUBOTA DMS. It handles dealer master data synchronization, purchase order management, invoice processing, channel finance operations, and stock quantity tracking.

Module Structure

Controller Layer (3 Controllers)

- **AccPacController:** Handles dealer master operations
 - Excel upload for dealer master data
 - Dealer code autocomplete
 - Dealer details retrieval
 - Dealer type listing
- **AccpacPoDetailsController:** Manages purchase order details and outstanding status
 - Save ACCPAC PO details
 - Get outstanding status by dealer code and PO ID

- **AccpacChannelFinanceController**: Handles channel finance invoice operations
 - Save invoice details for channel finance

Repository Layer (5 Repositories)

- **AccPacDealerMasterRepository**: Data access for dealer master information
- **AccpacPoDetailsRepo**: Data access for PO details and outstanding calculations
- **AccPacInvoiceRepository**: Data access for ACCPAC invoices
- **AccPacInvoiceMachineDetailRepository**: Data access for invoice part/machine details
- **InvoiceDetailsRepo**: Data access for channel finance invoices

Domain Entities (14 Entities)

Dealer & Master Entities:

- **AccPacDealerMaster**: Dealer master data synchronized from ACCPAC
- **AccpacSparesDealerOutstanding**: Dealer outstanding amounts for spares

Invoice Entities:

- **AccPacInvoice**: Main invoice entity from ACCPAC
- **AccPacInvoicePartDetails**: Invoice line items with machine details
- **AccpacChannelFinanceInvoice**: Channel finance invoice details
- **AccpacSparePartInvoice**: Spare parts invoice header
- **AccpacSparePartInvoiceItem**: Spare parts invoice line items

Purchase Order Entities:

- **AccpacPoDetails**: Dealer outstanding details (credit limits, OS amounts)
- **DmsAccpacSparesPo**: Spares purchase order from ACCPAC
- **DmsAccpacSparesPoltem**: Spares PO line items
- **AccpacDmsSparesPoltemSplit**: Split PO items for invoicing
- **DmsAccpacSalesPo**: Sales purchase order from ACCPAC
- **DmsAccpacSalesPoltem**: Sales PO line items

Stock Entity:

- **AccpacStockQuantity**: Stock quantity synchronized from ACCPAC

Key Features

- **Dealer Master Synchronization**: Excel-based upload and management of dealer master data

- **Purchase Order Management:** Complete PO lifecycle from ACCPAC to DMS
- **Invoice Processing:** Invoice synchronization and processing for both spares and sales
- **Channel Finance Integration:** Support for channel finance invoice tracking
- **Outstanding Management:** Credit limit and outstanding amount tracking
- **Stock Synchronization:** Stock quantity updates from ACCPAC
- **Multi-Entity Support:** Handles both spares and sales POs and invoices

External Dependencies

- **ApiResponse:** Standardized API response wrapper
- **JpaRepository:** Spring Data JPA repository interface
- **DealerMaster:** Dealer master entity from masters module
- **Poiji:** Excel file parsing library for dealer master uploads

Database Integration

- Uses stored procedures for complex queries:
 - sp_accpac_dealer_master_dealer_code_auto
 - sp_accpac_dealer_get_details_by_dealer_code
 - sp_acc_pac_dealer_dealer_type_list
 - sp_accpac_get_dealer_os
 - sp_sales_grn_get_acc_pac_invoice_details
 - sp_getInvoicesForChannelFinanceIndent

Business Logic

- **Credit Limit Management:** Tracks total credit limit, available limit, and outstanding amounts
- **Aging Analysis:** Outstanding amounts categorized by 0-30, 31-60, 61-90, and 90+ days
- **Invoice Status Tracking:** GRN done flag, MRC done flag for invoice processing
- **Multi-location Support:** Stock quantities tracked by ACCPAC location code
- **Split PO Handling:** Support for splitting PO items for partial invoicing