End-to-End User Manual

Silver Plan Procurement Management System

Version: 1.0
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Document Information

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Table of Contents

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1. Introduction

1.1 Purpose

This user manual provides comprehensive, step-by-step instructions for using the Silver Plan Procurement Management System. It serves as:

- **Primary User Guide**: Detailed instructions for all system functions
- **Training Material**: Reference documentation for new user onboarding
- **Operational Reference**: Quick lookup for common tasks and procedures
- **System Documentation**: Complete coverage of implemented features

1.2 Scope

This manual covers all implemented features of the Procurement Management System, including:

- Supplier onboarding and management
- Material master data management
- Material quotation and price comparison
- Purchase order creation and approval
- Goods receipt processing
- Workflow and approval management
- Role-based access control
- Data export functionality

Planned Features (Not Yet Implemented)

The following features are planned for future releases but are **not currently available** in version 1.0:

- **MRP (Material Requirements Planning)**: Automatic calculation of material requirements based on inventory, demand, and supply factors
- **Pre-Payment Management**: Application and approval workflow for supplier pre-payments
- **Advanced Inventory Tracking**: Real-time inventory levels, safety stock management, in-transit tracking

These features will be documented in future versions of this manual once they are implemented.

1.3 Document Structure

This manual is organized into logical sections:

- **Sections 1-2**: Introduction and getting started
- **Sections 3-4**: Core procurement workflows

- **Section 5**: System administration
- **Section 6**: Data management features
- **Section 7**: Appendices with reference materials

Each section contains detailed use cases with step-by-step instructions, expected results, and relevant screenshots.

1.4 System Overview

The Silver Plan Procurement Management System is a web-based application built on the MERN stack (MongoDB, Express.js, React.js, Node.js) that provides:

Key Features

- ✅ **Full Process Online Workflow**: Complete procurement processes managed digitally
- ✅ **Multi-level Approval Workflow Engine**: Configurable approval workflows with multiple levels
- ✅ **Attachment Management**: File attachments at all document stages
- ✅ **One-click Excel Export**: Export all list data to Excel format
- ✅ **Role-based Access Control (RBAC)**: Granular permission management
- ✅ **Bilingual Support**: English and Chinese (中文) interface
- ✅ **Real-time Status Tracking**: Live updates on document status and approvals

System Architecture

- **Frontend**: React.js with Ant Design (AntD) components
- **Backend**: Node.js with Express.js RESTful API
- **Database**: MongoDB with Mongoose ODM
- **Authentication**: Token-based authentication
- **Authorization**: Role-based permission system

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2. Getting Started

2.1 System Access

2.1.1 Login

1. Navigate to the system URL in your web browser
2. Enter your **Email** address
3. Enter your **Password**
4. Click **"Login"** or **"登录"** button

Note: If you do not have login credentials, contact your system administrator.

2.1.2 Logout

1. Click on your user profile icon in the top-right corner
2. Select **"Logout"** or **"退出"** from the dropdown menu

2.2 User Roles and Permissions

The system supports multiple user roles with different permission levels:

Available Roles

Role	Description	Key Permissions
System Administrator	Full system access	All permissions, system configuration
General Manager	Executive oversight	High-level approvals, all data access
Procurement Manager	Procurement oversight	Procurement approvals, team management
Purchaser	Purchase order creation	Create POs, quotations, suppliers
Finance Director	Financial oversight	Payment approvals, financial data
Finance Personnel	Payment processing	Process payments, view financial data
MRP Planner	Material planning	MRP calculations (when implemented)
Warehouse Personnel	Goods receipt	Create goods receipts, inventory tracking
Data Entry Personnel	Master data management	Create/update suppliers, materials

Note: Your actual permissions depend on your assigned roles. Contact your system administrator if you need additional permissions.

2.3 Navigation Overview

The main navigation menu is located on the left side of the screen and includes:

- **Dashboard**: System overview and statistics
- **Procurement**: Supplier, Material, Quotation, PO, and Goods Receipt management
- **Administration**: User, Role, Workflow, and Approval management
- **Settings**: System configuration

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3. Pre-Procurement Management (采购前：基础数据与价格管理)

Objective: Centralized, standardized, process-oriented management of suppliers, materials, and quotation information.

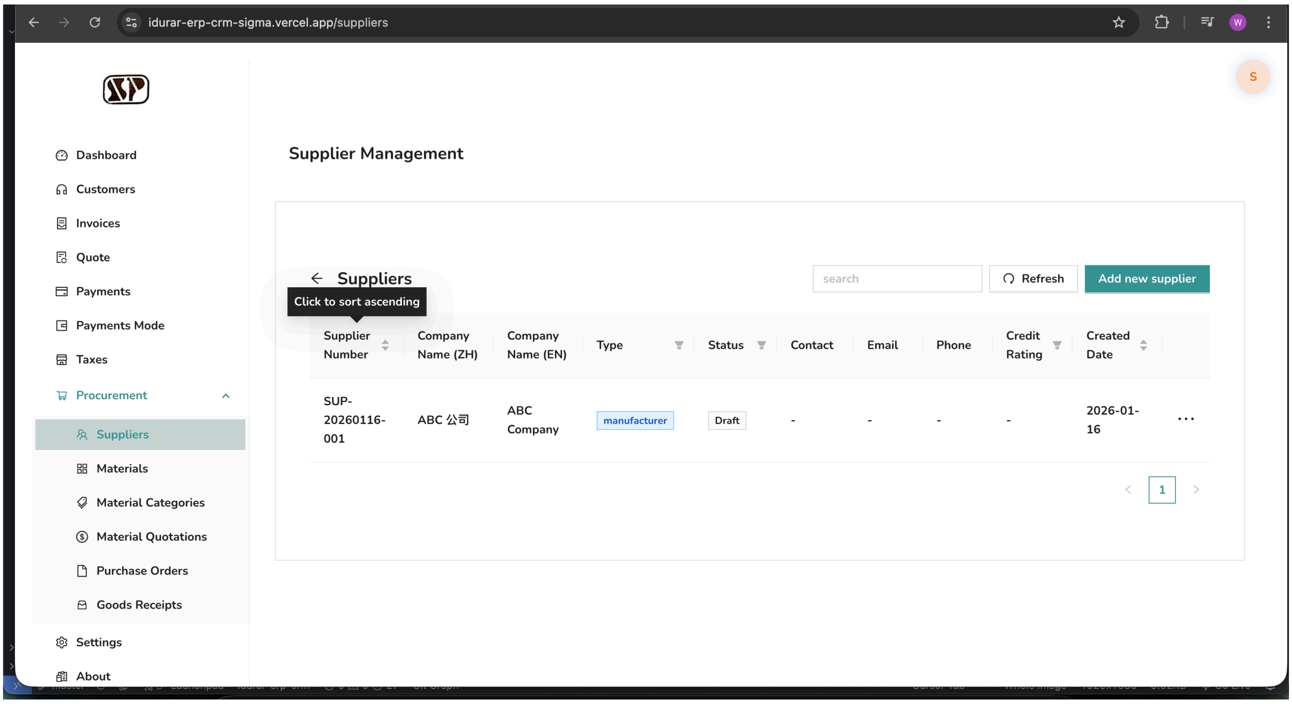
3.1 Supplier Management (供应商管理)

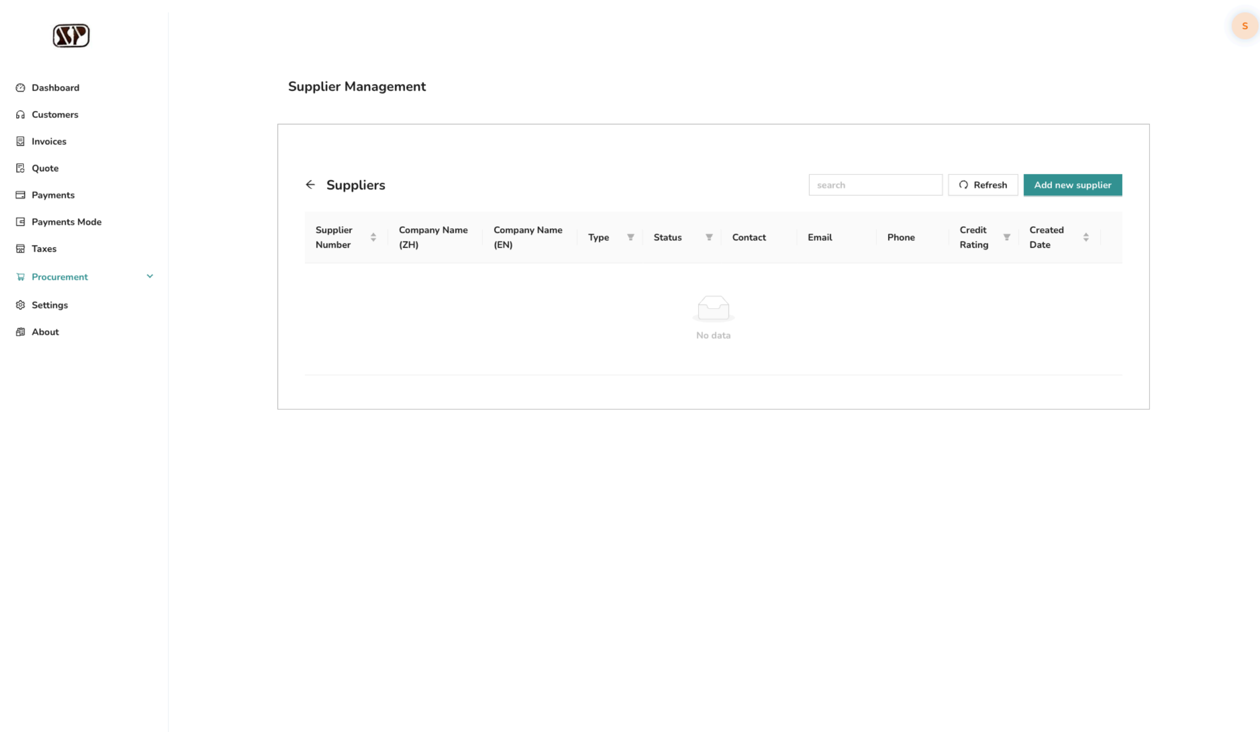
Use Case 3.1.1: Create Supplier

Objective: Create a new supplier record with complete information.

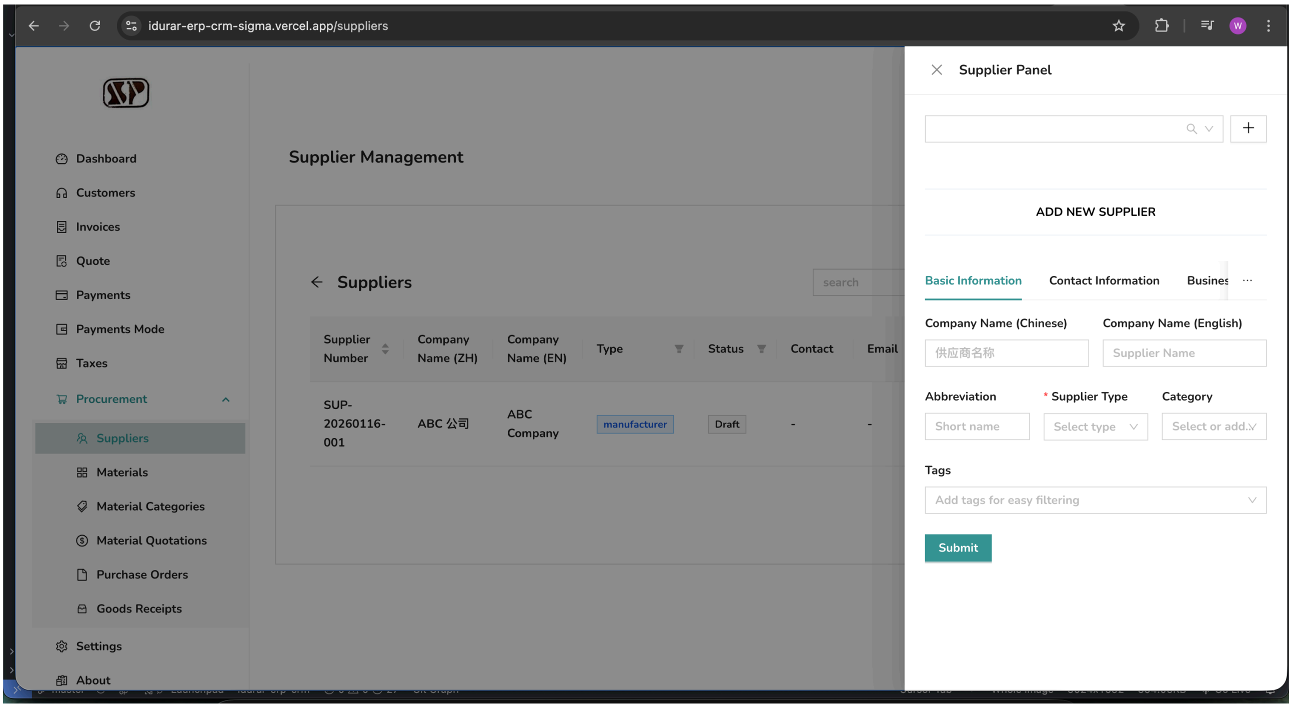
Prerequisites: User must have `supplier:create` permission.

Steps:

1. Navigate to **Procurement → Suppliers** from the main menu
    - 

2. Click **"Add new supplier"** or **"Create"** button
    - 

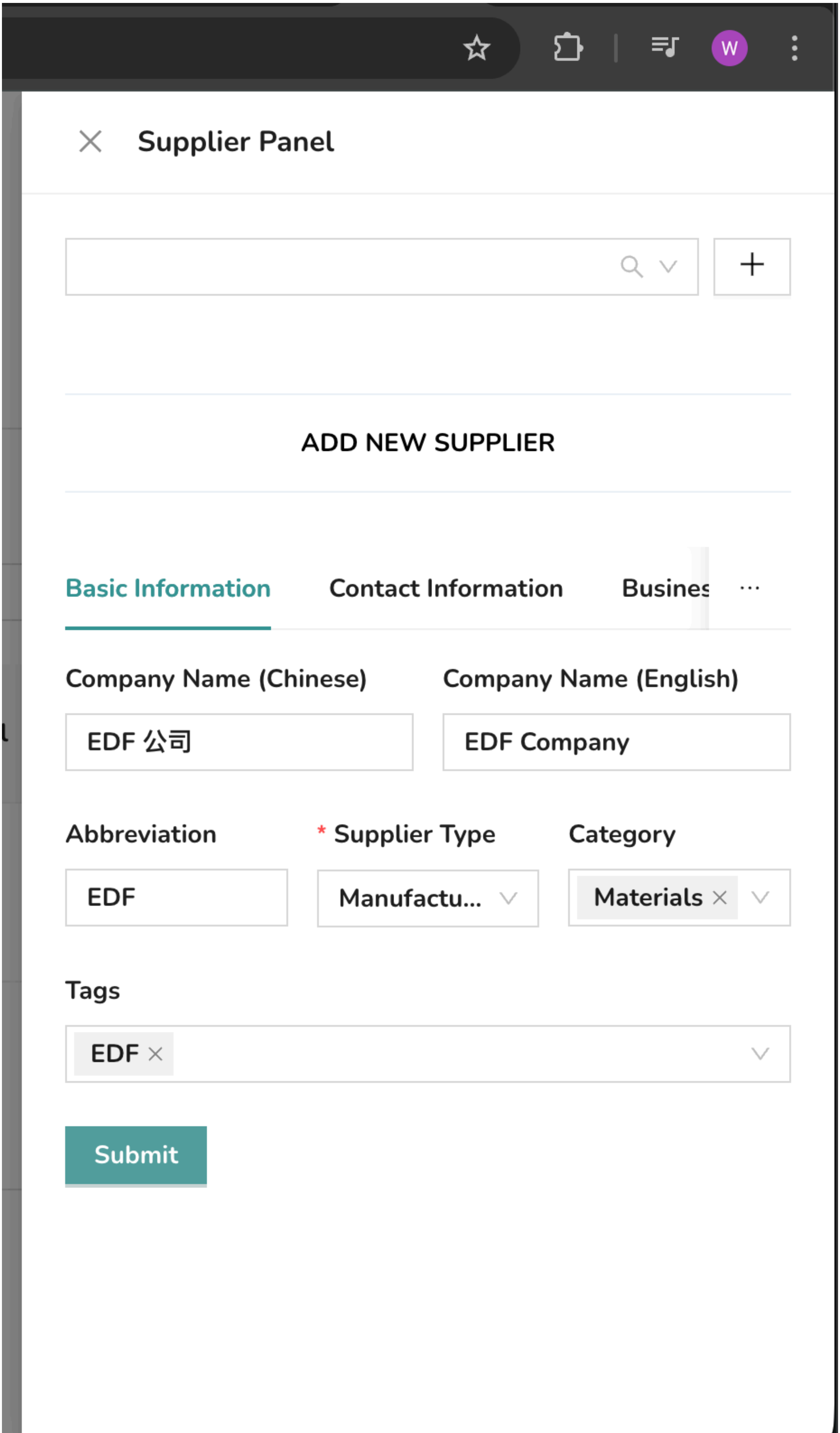
3. Fill in required fields in the supplier form:
    - **Supplier Code**: Auto-generated (read-only)
    - **Company Name (ZH)**: Enter Chinese company name (required)

- **Company Name (EN)**: Enter English company name (optional)
- **Supplier Type**: Select from dropdown (Manufacturer, Trader, Service Provider)
- **Contact Person**: Enter primary contact name
- **Email**: Enter contact email address
- **Phone**: Enter contact phone number
- **Address**: Enter company address
- 

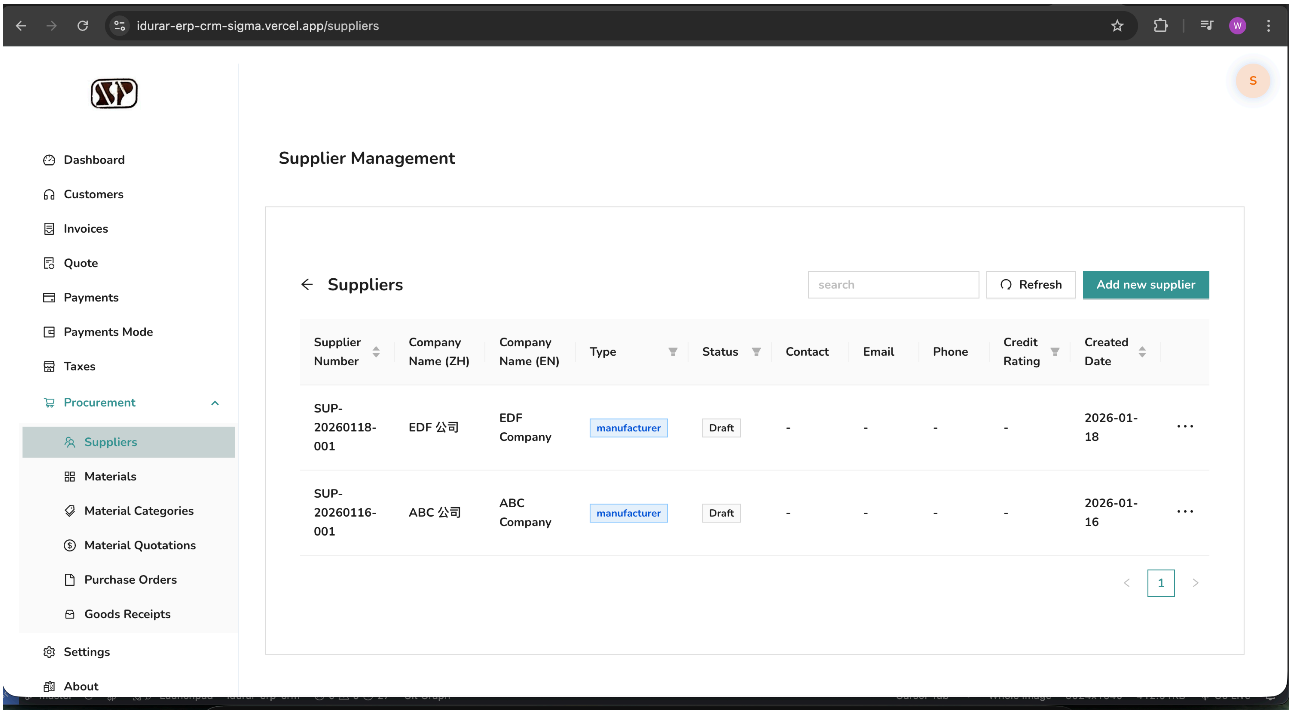
4. Fill in optional fields as needed:

   - Business license information
   - Banking information
   - Payment terms
   - Notes and remarks

5. Click **"Save"** or **"Submit"** button


W
Supplier Panel
ADD NEW SUPPLIER
Basic Information
Contact Information
Busines
Company Name (Chinese)
Company Name (English)
EDF 公司
EDF Company
Abbreviation
* Supplier Type
Category
EDF
Manufactu...
Materials
Tags
EDF
Submit

6. Verify success message appears



Expected Result:

- Supplier record is created successfully
- Supplier appears in the supplier list
- Supplier code is automatically generated
- Record is saved with status "draft" or "active" depending on workflow configuration

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Use Case 3.1.2: Upload Supplier Attachments

Objective: Attach supporting documents to supplier records.

Prerequisites: User must have `supplier:update` permission.

Steps:

1. Navigate to **Suppliers** page
2. Click on an existing supplier record to open the detail view
3. Locate the **Attachments** section
   - Attachment Section
4. Click **"Upload"** button or drag and drop files
5. Select files from your computer (supported formats: PDF, DOC, DOCX, XLS, XLSX, images)
6. Add file description (optional)
7. Click **"Upload"** to confirm
8. Verify files are uploaded and displayed in the attachments list
   - Uploaded Files

Expected Result:

- Files are successfully uploaded
- Attachments are visible in the supplier record
- Files can be downloaded or deleted (with appropriate permissions)

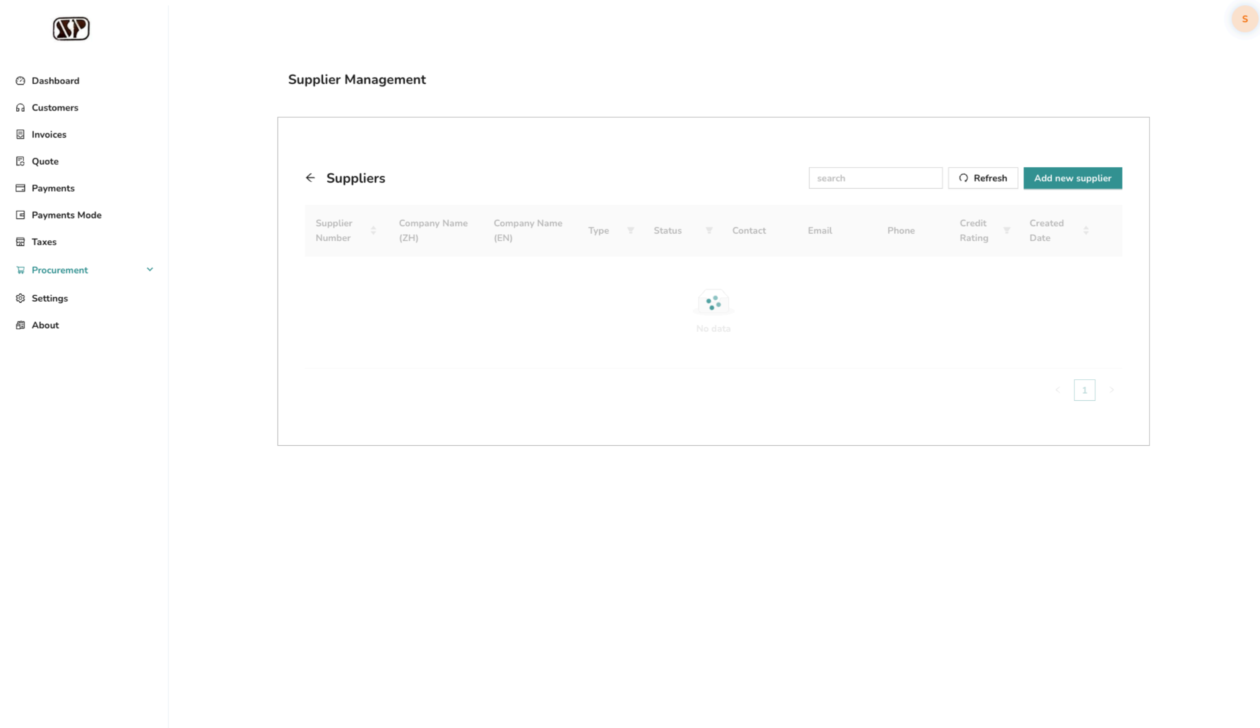
File Size Limit: Maximum 10MB per file

Use Case 3.1.3: Export Supplier List to Excel

Objective: Export supplier data to Excel format for reporting or analysis.

Prerequisites: User must have `supplier:export` permission.

Steps:

1. Navigate to **Suppliers** page
2. Apply any filters if needed (optional):
    - Filter by supplier type
    - Filter by status
    - Search by name or code
3. Click **"Export"** or **"导出"** button
    - Export Button
4. Wait for download to complete (progress indicator may appear)
5. Open the downloaded Excel file
    - 

Expected Result:

- Excel file is downloaded with filename format: `suppliers_YYYYMMDD_HHMMSS.xlsx`
- File contains all visible supplier data in columns
- Data matches the current filter settings

Use Case 3.1.4: Submit Supplier for Approval

Objective: Submit supplier record through the approval workflow.

Prerequisites:

- User must have `supplier:submit` permission
- Workflow must be configured for supplier document type

Steps:

1. Create or edit a supplier record
2. Fill in all required information
3. Upload any required attachments
4. Click **"Save"** to save the draft
5. Click **"Submit"** or **"提交"** button
    - Submit Button
6. Confirm submission in the dialog
7. Verify submission success message
    - Submission Success

Expected Result:

- Supplier status changes to "submitted" or "under_approval"
- Supplier appears in the approval queue
- Workflow instance is created
- Notifications are sent to approvers

3.2 Material Management (物料管理)

Use Case 3.2.1: Create Material

Objective: Create a new material record with standardized fields.

Prerequisites: User must have `material:create` permission.

Steps:

1. Navigate to **Procurement → Materials** from the main menu

-

2. Click **"新增物料"** (New Material) or **"Create"** button

   - Create Material Button

3. Fill in required fields:

   - **Material Code**: Enter unique material code (e.g., MAT-001) or leave blank for auto-generation
   - **Material Name (ZH)**: Enter Chinese material name (required)
   - **Material Name (EN)**: Enter English material name (optional)
   - **Base UOM**: Select unit of measure (e.g., EA, KG, M, PCS)
   - **Category**: Select material category from dropdown
   - Material Form

4. Fill in optional fields:

   - Specification
   - Brand and Model
   - Description
   - Default supplier
   - Lead time
   - MOQ (Minimum Order Quantity)
   - Safety stock level

5. Click **"Save"** button

6. Verify success message

   - Material Created

Expected Result:

- Material is created with standardized fields
- Material appears in the material list

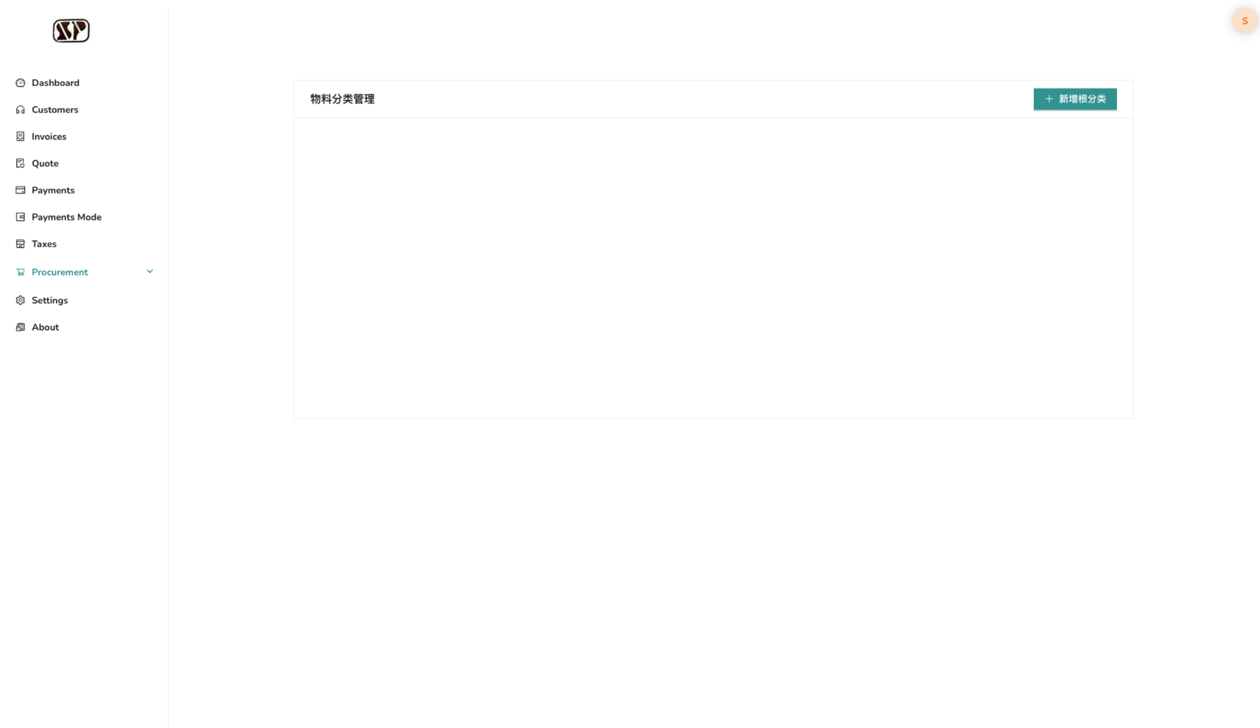
- Material code is generated if not provided

Use Case 3.2.2: Manage Material Categories

Objective: Create and manage material category hierarchy.

Prerequisites: User must have `material_category:create` permission.

Steps:

1. Navigate to **Procurement → Material Categories** page
    - 

2. Click **"Create"** button
3. Fill in category information:
    - **Category Code**: Enter category code (e.g., CAT-001)
    - **Category Name (ZH)**: Enter Chinese category name
    - **Category Name (EN)**: Enter English category name
    - **Parent Category**: Select parent category if creating subcategory (optional)
    - Category Form
4. Click **"Save"**
5. Verify category is created
    - Category Created

Expected Result:

- Material category is created
- Category can be assigned to materials
- Category hierarchy is maintained

Use Case 3.2.3: Export Material List to Excel

Objective: Export material data to Excel format.

Prerequisites: User must have `material:export` permission.

Steps:

1. Navigate to **Materials** page
2. Apply filters if needed (by category, status, etc.)
3. Click **"Export"** or **"导出Excel"** button
   - Material Export
4. Wait for download
5. Verify Excel file contains all material data
   -

Expected Result:

- Excel file downloaded with complete material information
- File format matches system specifications

3.3 Material Quotation Management (报价管理)

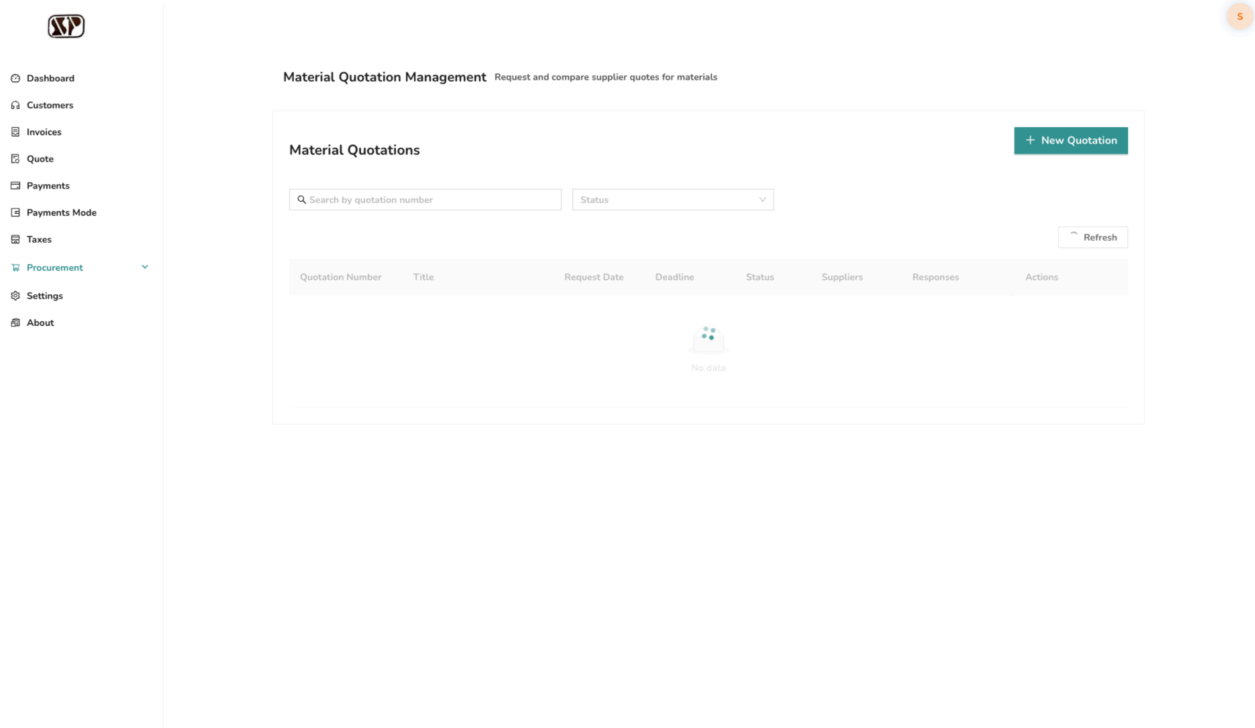
Use Case 3.3.1: Create Material Quotation

Objective: Create a quotation request and compare multiple supplier quotes.

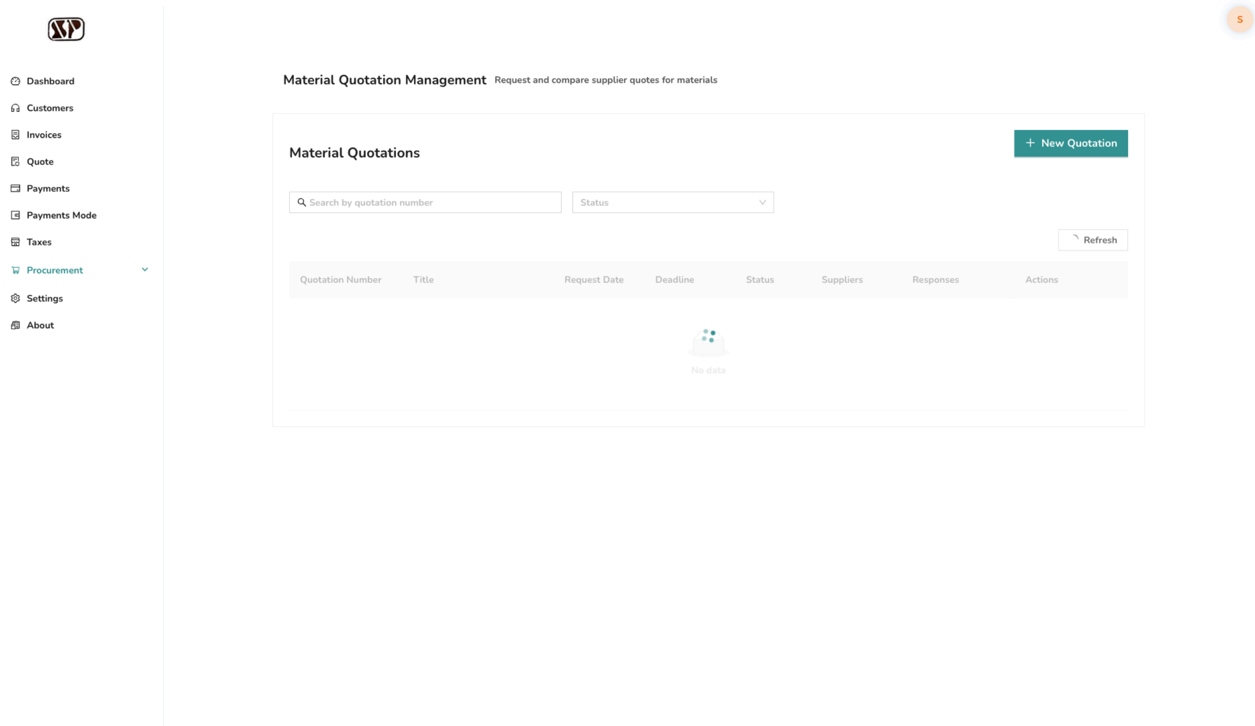
Prerequisites: User must have `material_quotation:create` permission.

Steps:

1. Navigate to **Procurement** → **Material Quotations** page

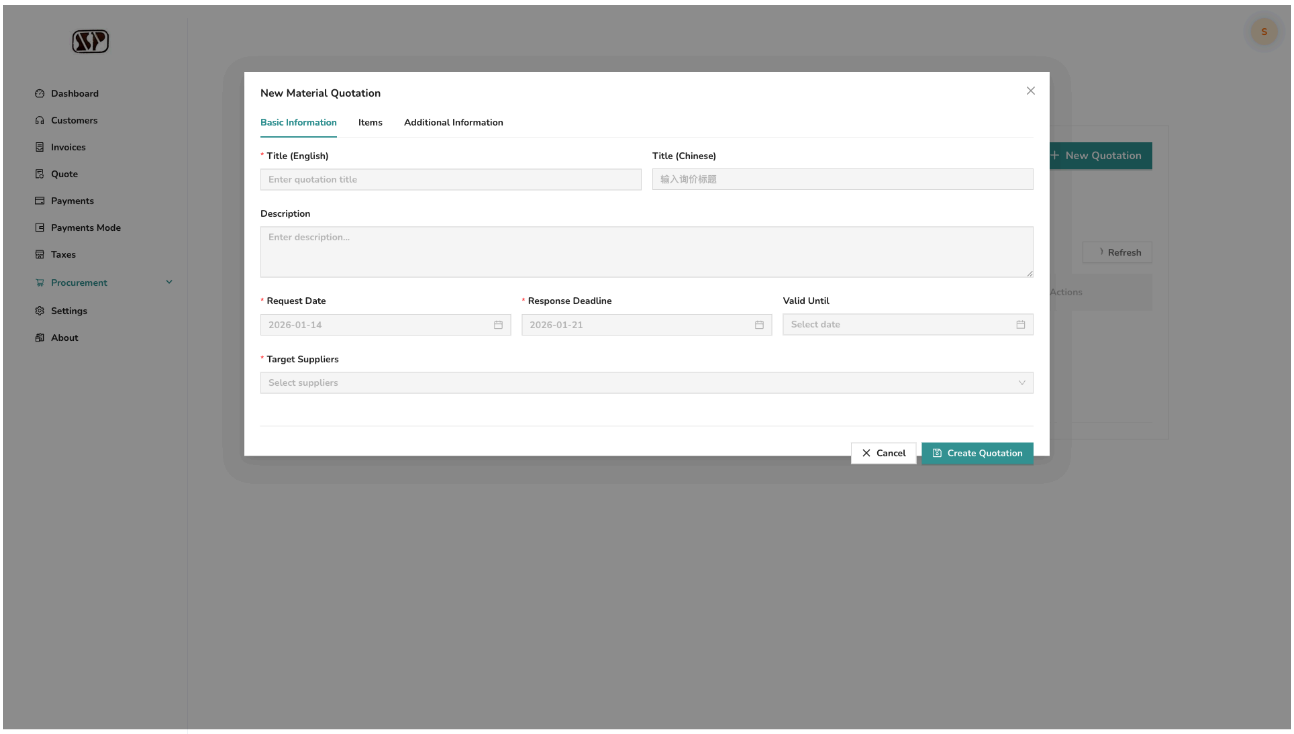


2. Click **"New Quotation"** or **"Create"** button



3. Fill in quotation header:

- **Quotation Number**: Auto-generated (read-only)
- **Title (ZH/EN)**: Enter quotation title
- **Request Date**: Select request date
- **Response Deadline**: Select deadline for supplier responses

- 

4. Add quotation items:

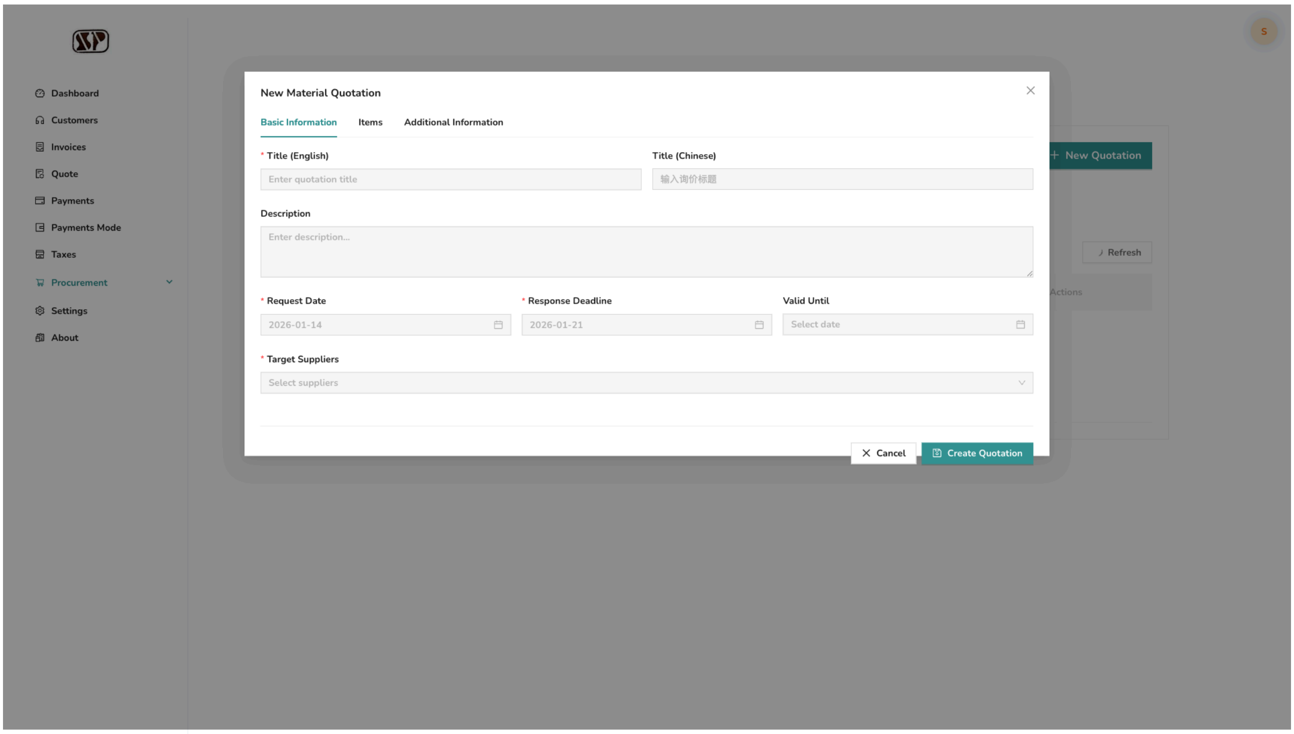
    - Click **"Add Item"** button
    - Select **Material** from dropdown
    - Enter **Quantity**
    - Enter **Specifications** (optional)
    - Repeat for multiple materials

5. Add supplier quotes for each item:

    - Click **"Add Quote"** button for an item
    - Select **Supplier** from dropdown
    - Enter **Unit Price**
    - Enter **Lead Time** (days)
    - Enter **MOQ** (Minimum Order Quantity)
    - Enter **Valid Until** date
    - Add **Payment Terms** and **Delivery Terms** (optional)
    - Repeat for multiple suppliers
    - Add Quotes

6. Click **"Save"**

7. Verify quotation is created

- 

Expected Result:

- Quotation created with multiple items
- Multiple supplier quotes can be added per item
- Quotation status is "draft"
- Quotation can be submitted for approval

Use Case 3.3.2: Compare Supplier Quotes

Objective: View and compare quotes from different suppliers for the same material.

Steps:

1. Navigate to **Material Quotations** page
2. Select a quotation with multiple quotes
3. View the quotation detail page
4. For each item, review the quotes table showing:
   - Supplier names
   - Unit prices
   - Total prices (quantity × unit price)
   - Lead times
   - MOQ/MPQ
   - Valid until dates
   - Payment and delivery terms
   - Quote Comparison
5. Select preferred quote by clicking **"Select"** button (if permitted)

Expected Result:

- Side-by-side comparison of all supplier quotes is displayed
- Quotes are ranked by price (lowest first)
- Selected quote is marked for use in purchase orders

Use Case 3.3.3: Submit Quotation for Approval

Objective: Submit quotation through approval workflow.

Prerequisites: User must have `material_quotation:submit` permission.

Steps:

1. Navigate to **Material Quotations** page
2. Select an existing quotation
3. Review all information and quotes
4. Click **"Submit"** or **"提交"** button
    - Submit Quotation
5. Confirm submission
6. Verify submission success
    - Quotation Submitted

Expected Result:

- Quotation is submitted and appears in approval queue
- Status changes to "submitted" or "under_approval"
- Workflow instance is created
- Approvers receive notifications

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4. Procurement Execution (采购中：订单执行)

Objective: Automated, traceable management from requirements to orders.

4.1 Purchase Order Management (采购订单执行)

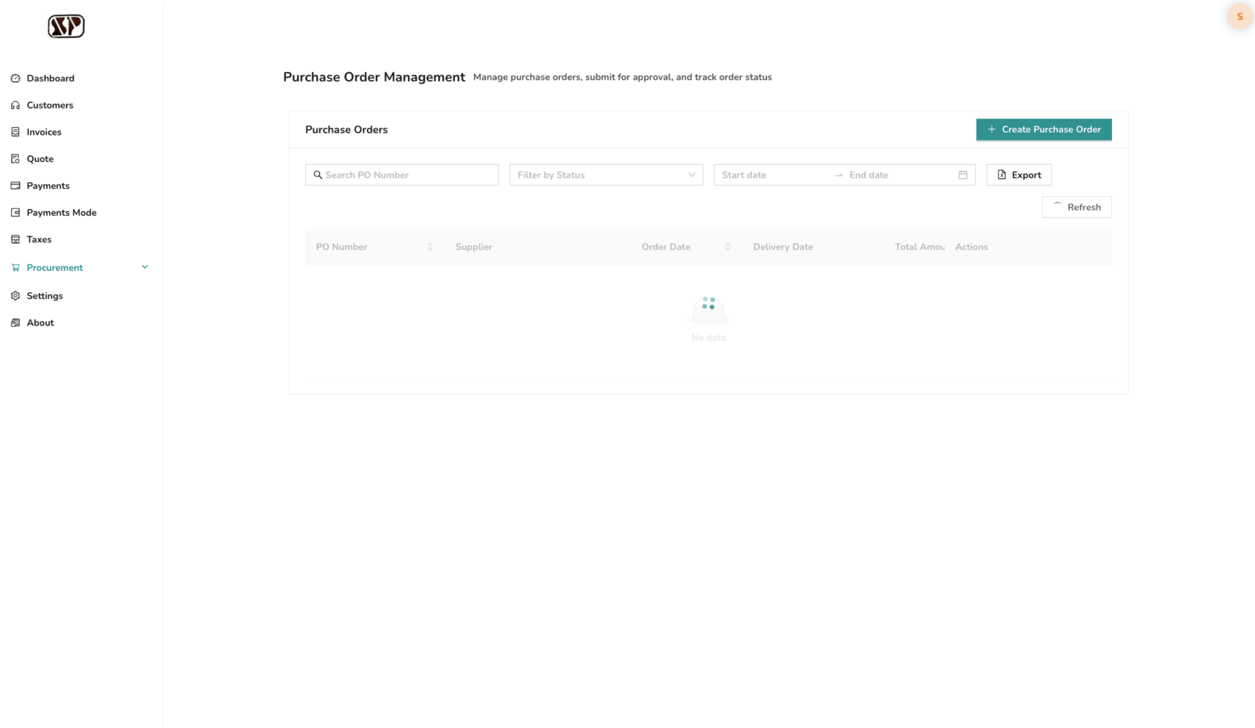
Use Case 4.1.1: Create Purchase Order

Objective: Create a purchase order based on approved quotation or manually.

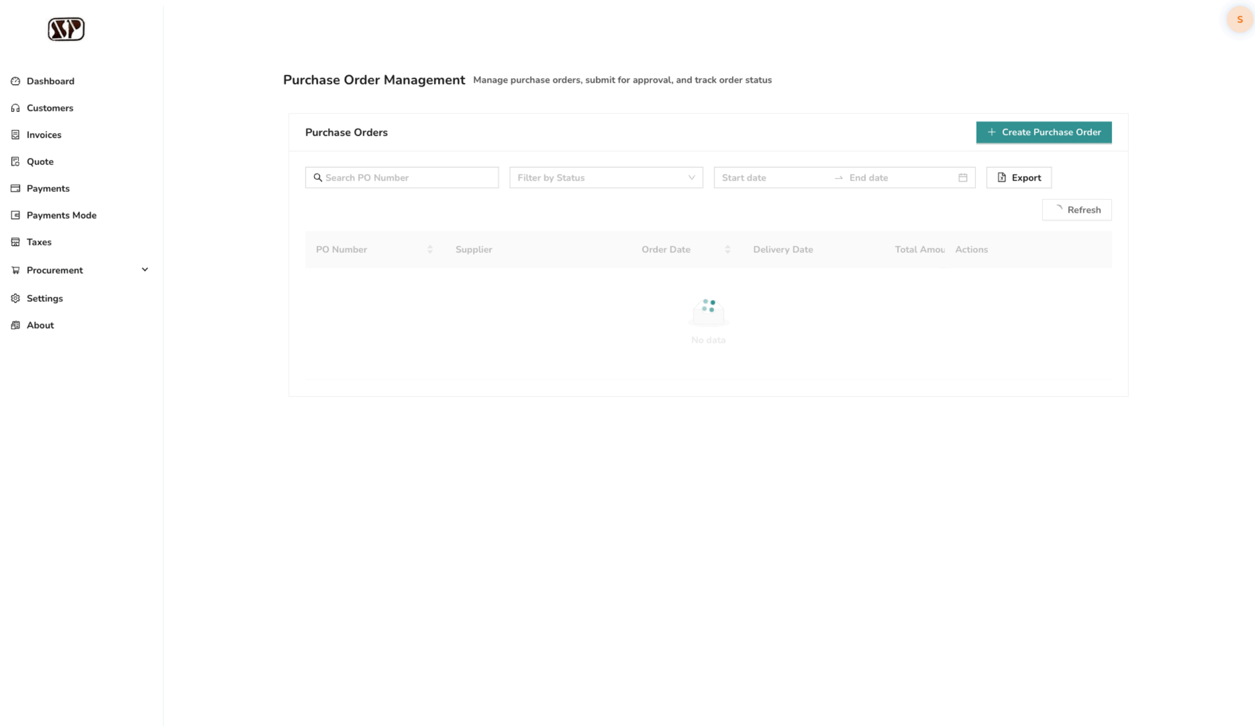
Prerequisites: User must have `purchase_order:create` permission.

Steps:

1. Navigate to **Procurement → Purchase Orders** page

- 

2. Click **"Create Purchase Order"** or **"Create"** button

- 

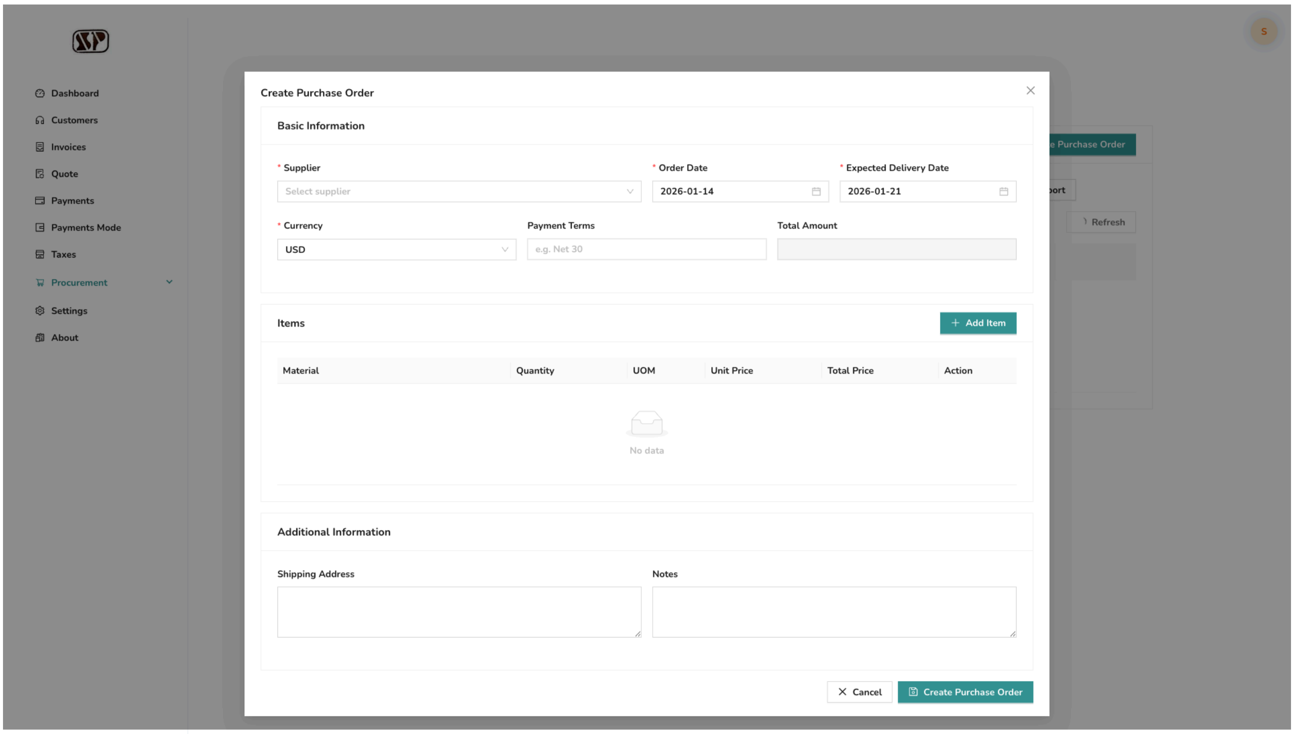
3. Fill in PO header:

   - **PO Number**: Auto-generated (read-only)
   - **Supplier**: Select supplier from dropdown
   - **Order Date**: Select order date (defaults to today)
   - **Expected Delivery Date**: Select expected delivery date
   - **Currency**: Select currency (default: CNY)

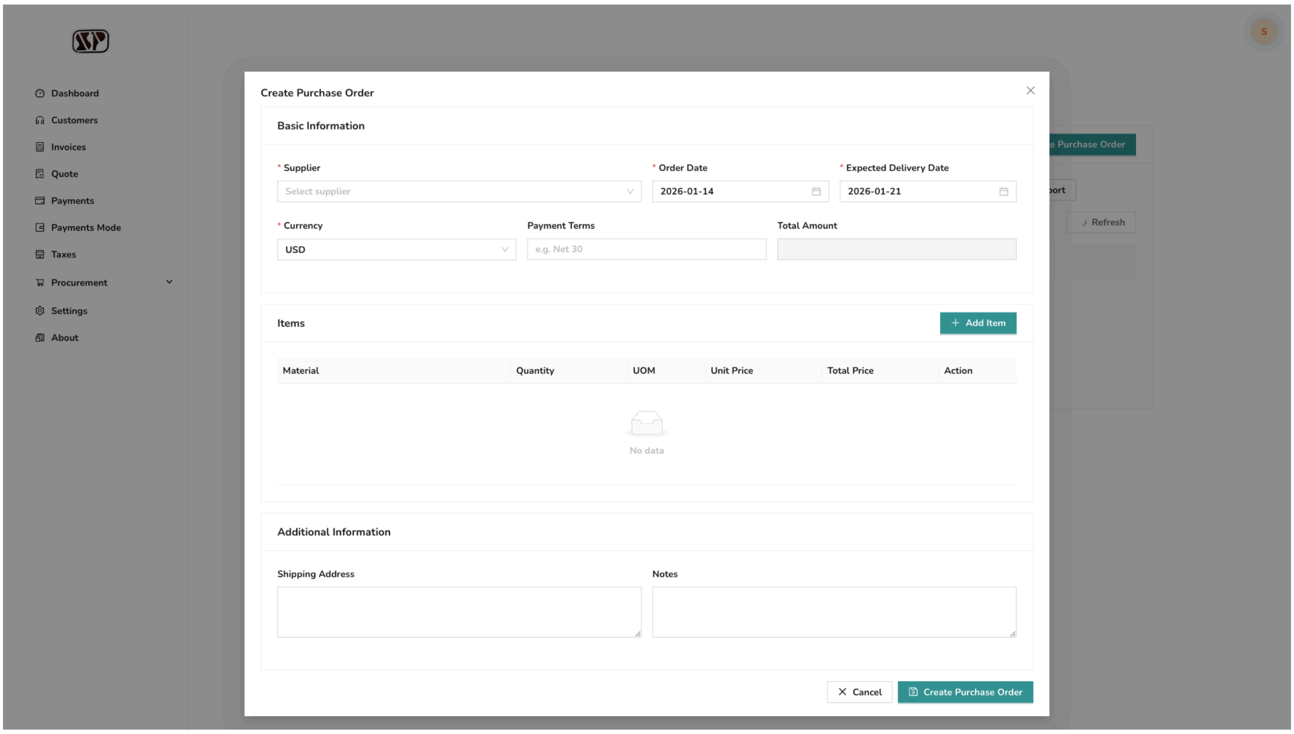
4. Add line items:

   - Click **"Add Item"** button
   - **Material**: Select material from dropdown

- **Quantity**: Enter quantity
- **Unit Price**: Enter unit price (pre-filled if from quotation)
- **UOM**: Unit of measure (auto-filled from material)
- **Required Delivery Date**: Select delivery date for this line
- Repeat for multiple items



5. Review financial summary:
   - Subtotal
   - Tax amount (if applicable)
   - Shipping cost (if applicable)
   - Discount (if applicable)
   - Total amount
6. Fill in terms and conditions:
   - Payment terms
   - Delivery terms
   - Shipping address
   - Terms and conditions text
7. Click **"Save"**
8. Verify PO is created

- 

Expected Result:

- Purchase order created with all line items
- PO number is automatically generated
- Status is "draft"
- PO can be edited, submitted, or deleted (based on permissions)

Use Case 4.1.2: Submit Purchase Order for Approval

Objective: Submit purchase order through approval workflow.

Prerequisites:

- User must have `purchase_order:submit` permission
- PO must have at least one line item
- Total amount must be greater than zero

Steps:

1. Navigate to **Purchase Orders** page
2. Select a purchase order (status: draft)
3. Review all information
4. Click **"Submit"** or **"提交"** button
   - Submit PO
5. Confirm submission
6. Verify submission success
   - PO Submitted

Expected Result:

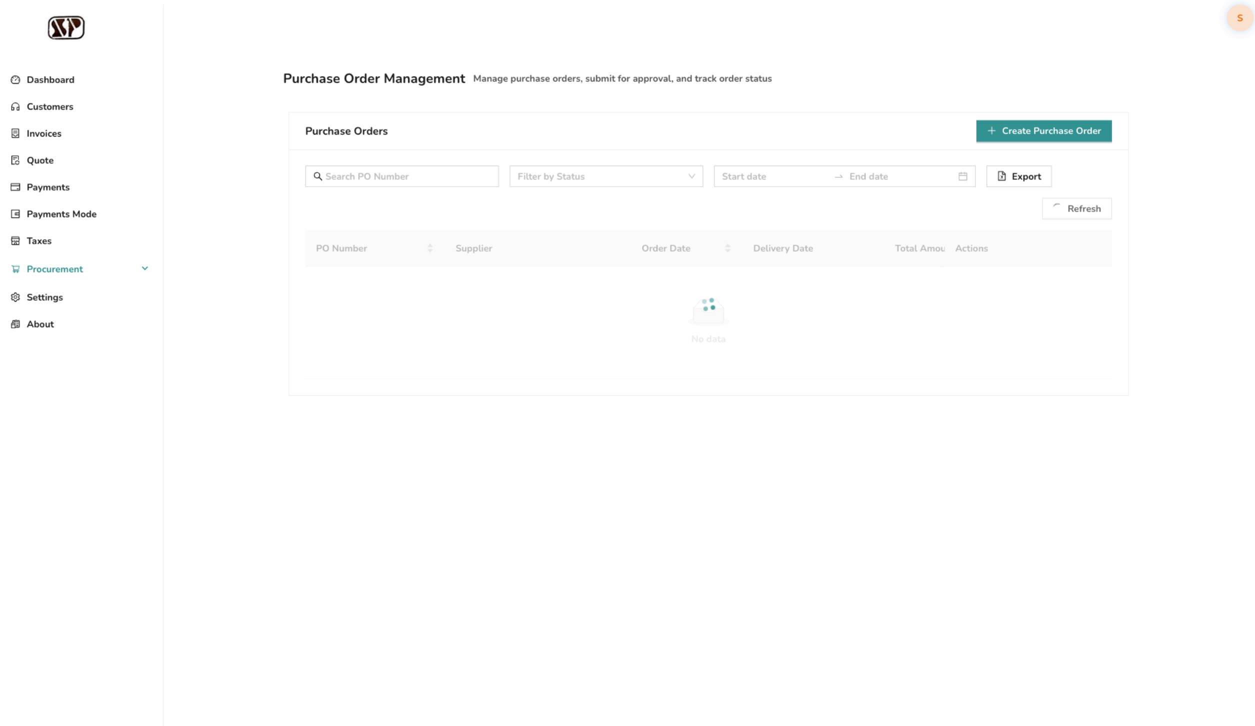
- PO status changes to "pending_approval" or "under_approval"

- PO appears in approval queue
- Workflow instance is created
- Approvers receive notifications based on amount thresholds

Use Case 4.1.3: Track Purchase Order Status

Objective: Monitor purchase order status throughout its lifecycle.

Steps:

1. Navigate to **Purchase Orders** page
2. View status column in PO list
    - 

3. Click on a PO to view details
4. Review status information:
    - Current status
    - Approval workflow status
    - Approval history
    - Status change timestamps
    - PO Status Details

Available Statuses:

- `draft`: Initial creation, not submitted
- `pending_approval`: Submitted, awaiting approval
- `approved`: Approved by all required approvers
- `rejected`: Rejected during approval
- `sent_to_supplier`: Sent to supplier
- `confirmed`: Supplier confirmed the order
- `in_production`: Supplier is producing
- `shipped`: Goods shipped by supplier
- `partially_received`: Some goods received

- `received`: All goods received
- `completed`: Order fully completed
- `cancelled`: Order cancelled

Expected Result:

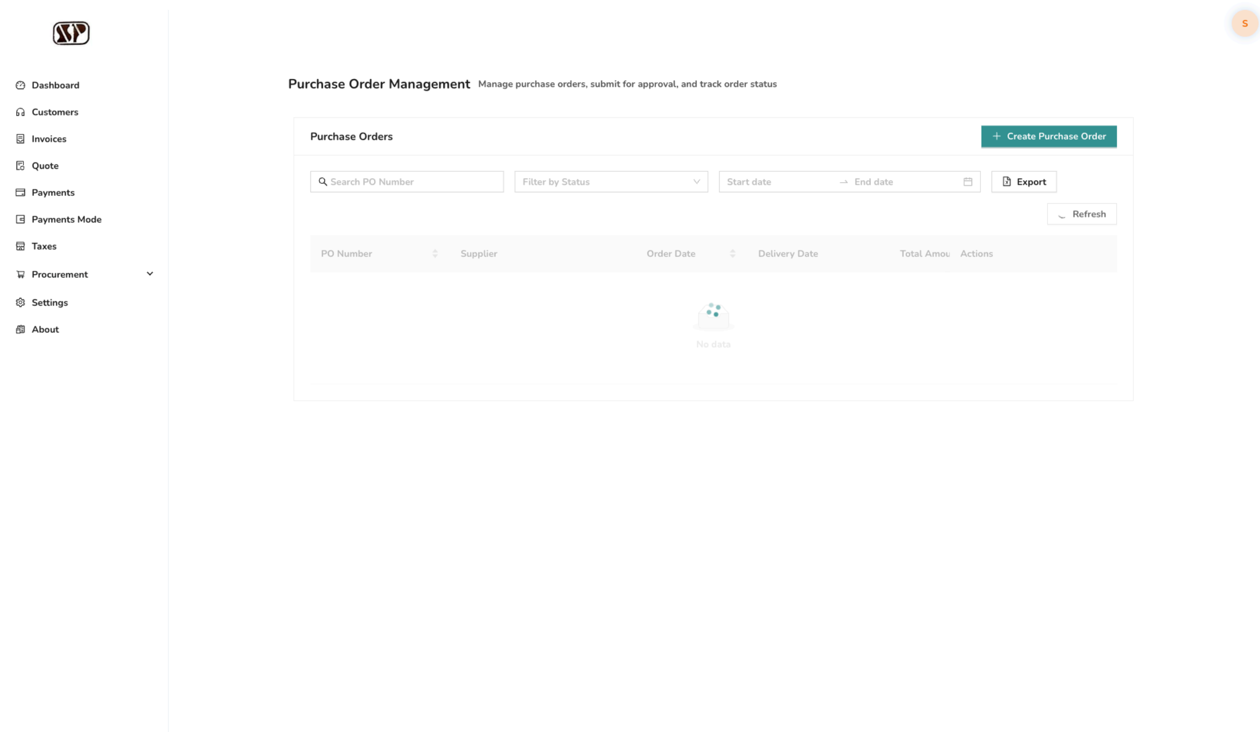
- PO status is visible and trackable throughout lifecycle
- Status history shows all changes with timestamps
- Current approver information is displayed

Use Case 4.1.4: Export Purchase Order List to Excel

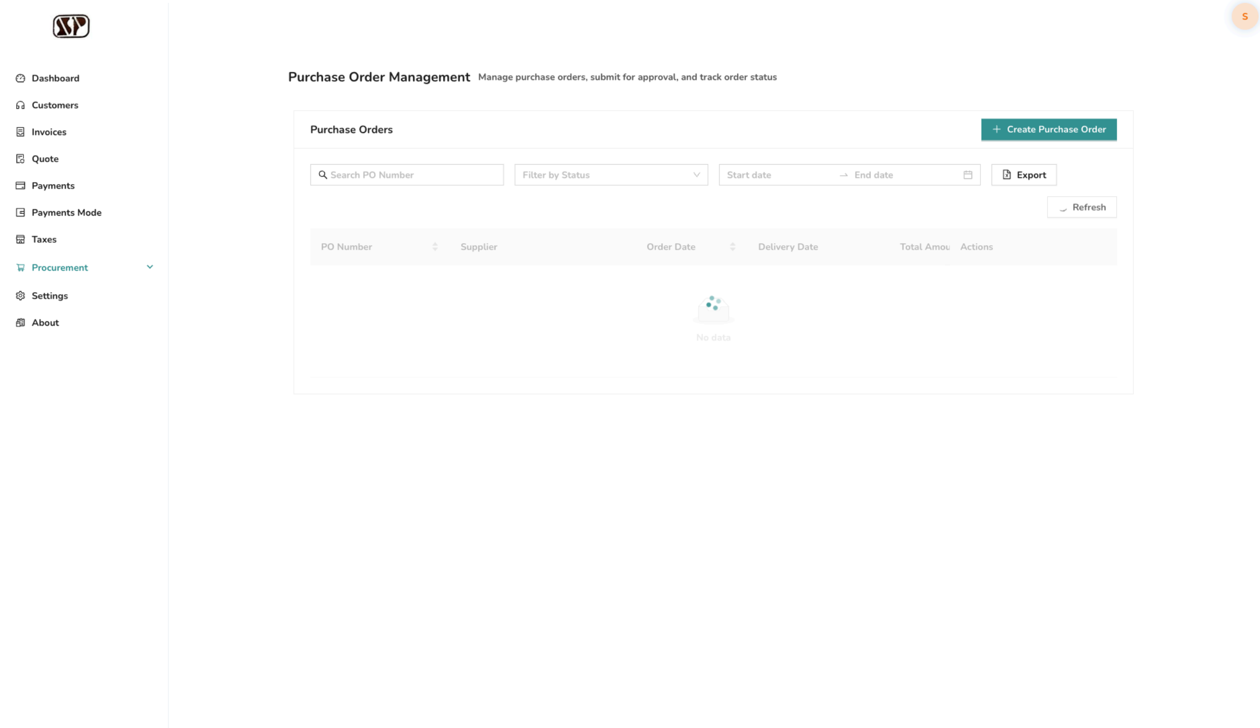
Objective: Export purchase order data to Excel format.

Prerequisites: User must have `purchase_order:export` permission.

Steps:

1. Navigate to **Purchase Orders** page
2. Apply filters if needed (by status, supplier, date range)
3. Click **"Export"** or **"导出"** button
    - 

4. Wait for download
5. Verify Excel file



Expected Result:

- Excel file downloaded with all PO data
- File includes line items and totals
- Format matches system specifications

4.2 Goods Receipt Management (收货管理)

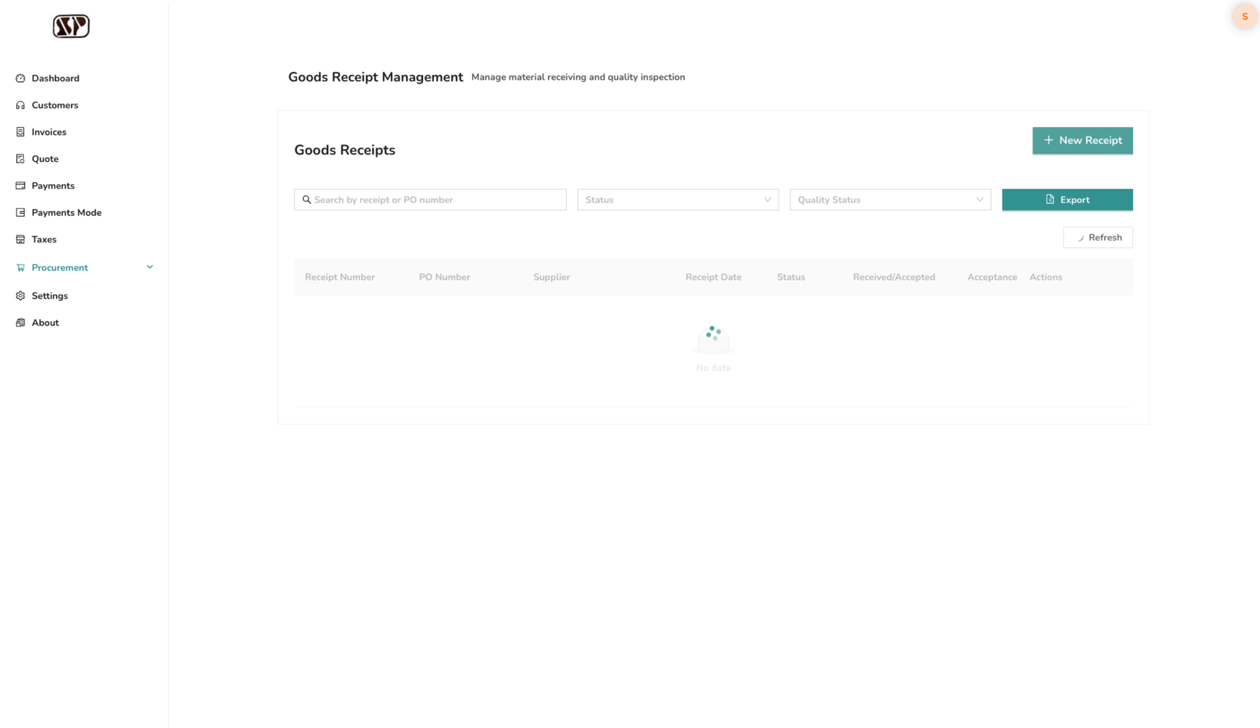
Use Case 4.2.1: Create Goods Receipt from Purchase Order

Objective: Record goods receipt against a purchase order.

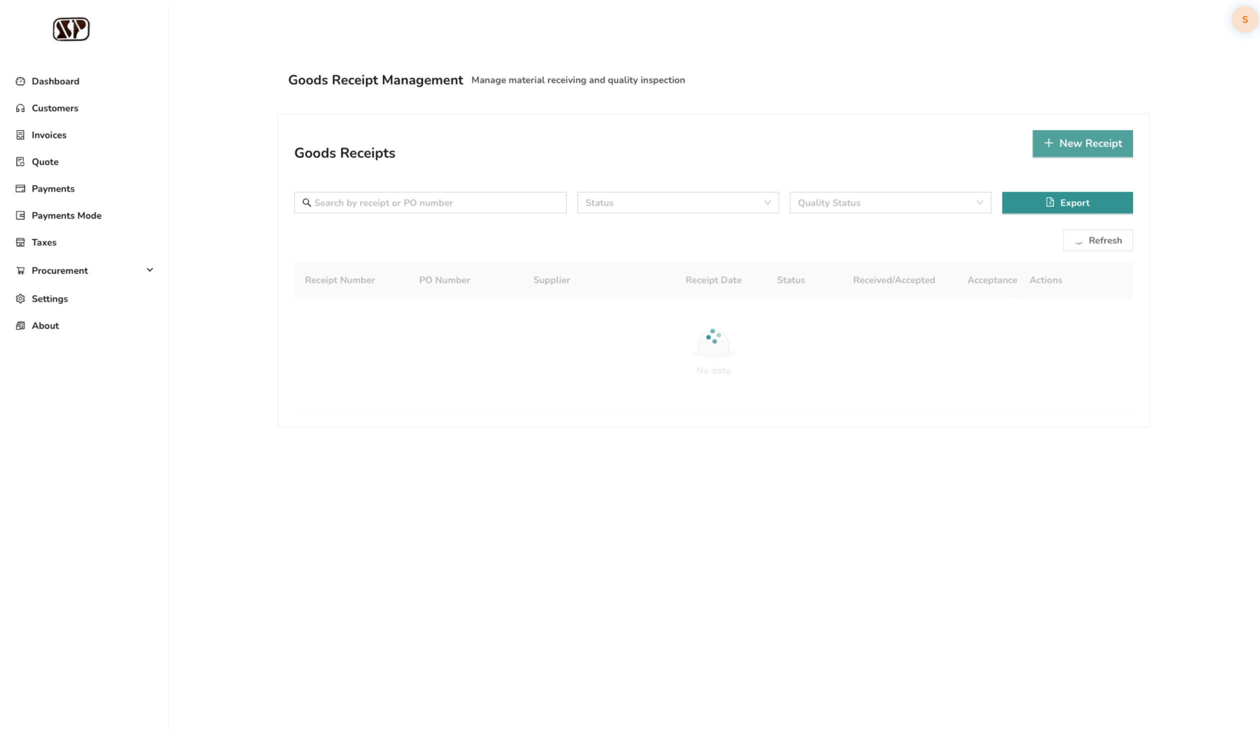
Prerequisites: User must have `goods_receipt:create` permission.

Steps:

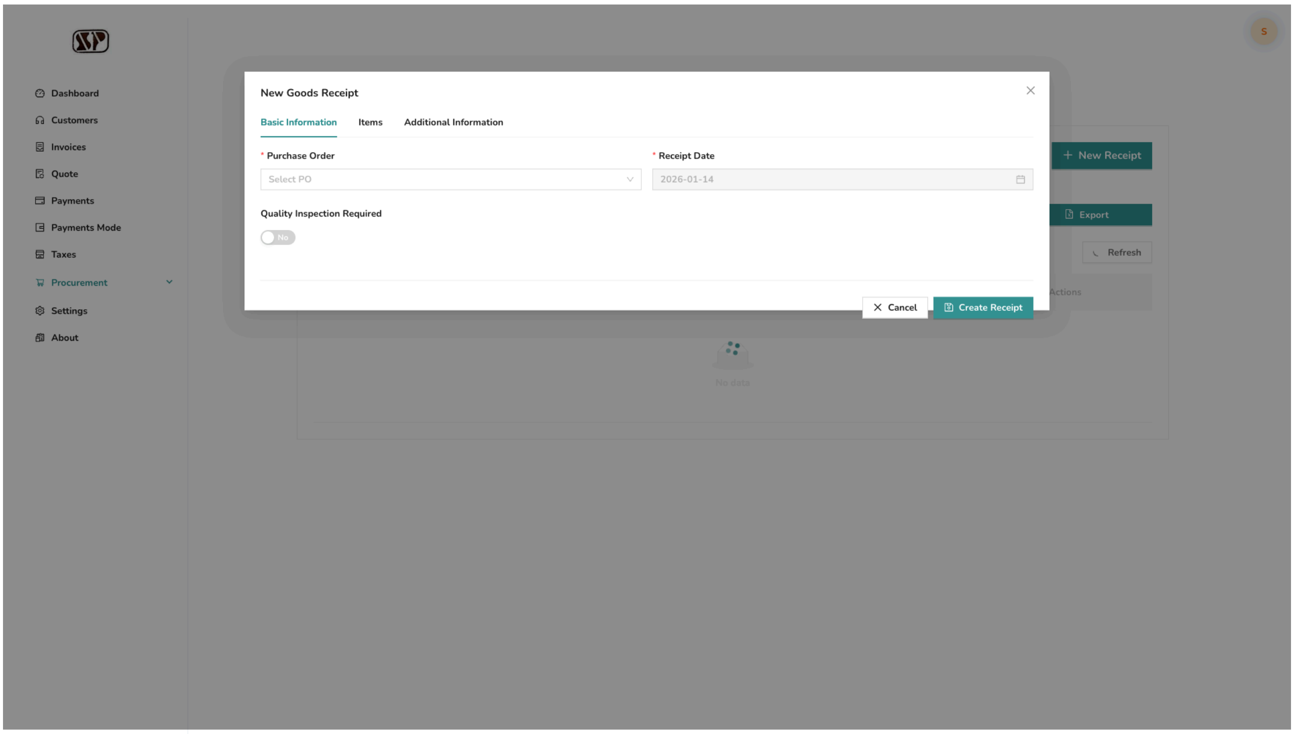
1. Navigate to **Procurement** → **Goods Receipts** page

- 

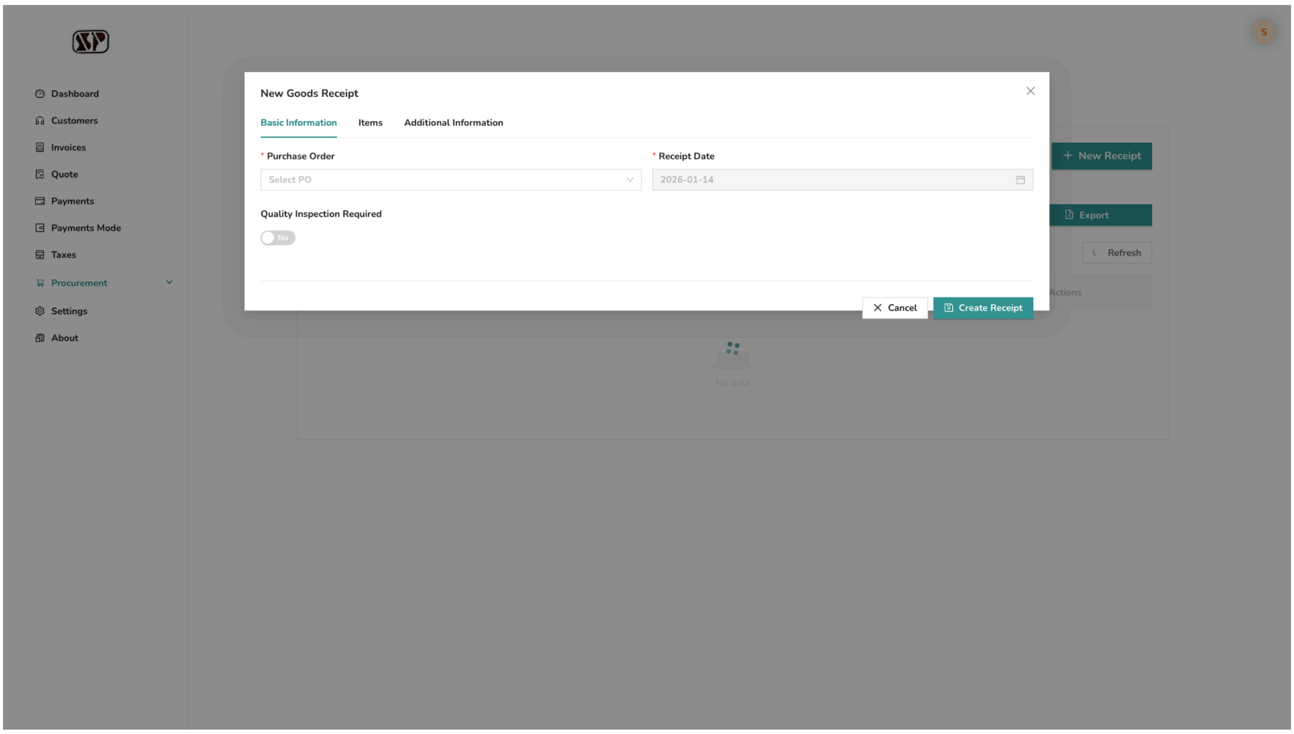
2. Click **"New Receipt"** or **"Create"** button

- 

3. Fill in receipt details:
   - **Purchase Order**: Select PO from dropdown (only approved/shipped POs shown)
   - **Receipt Date**: Select receipt date (defaults to today)
   - **Receipt Number**: Auto-generated (read-only)
4. Review PO line items and enter received quantities:
   - For each line item, enter **Received Quantity**
   - System calculates **Outstanding Quantity** automatically
   - Add **Remarks** if needed



5. Fill in additional information:
    - Quality inspection status
    - Receiving warehouse/location
    - Notes
6. Click **"Save"**
7. Verify receipt is created



Expected Result:

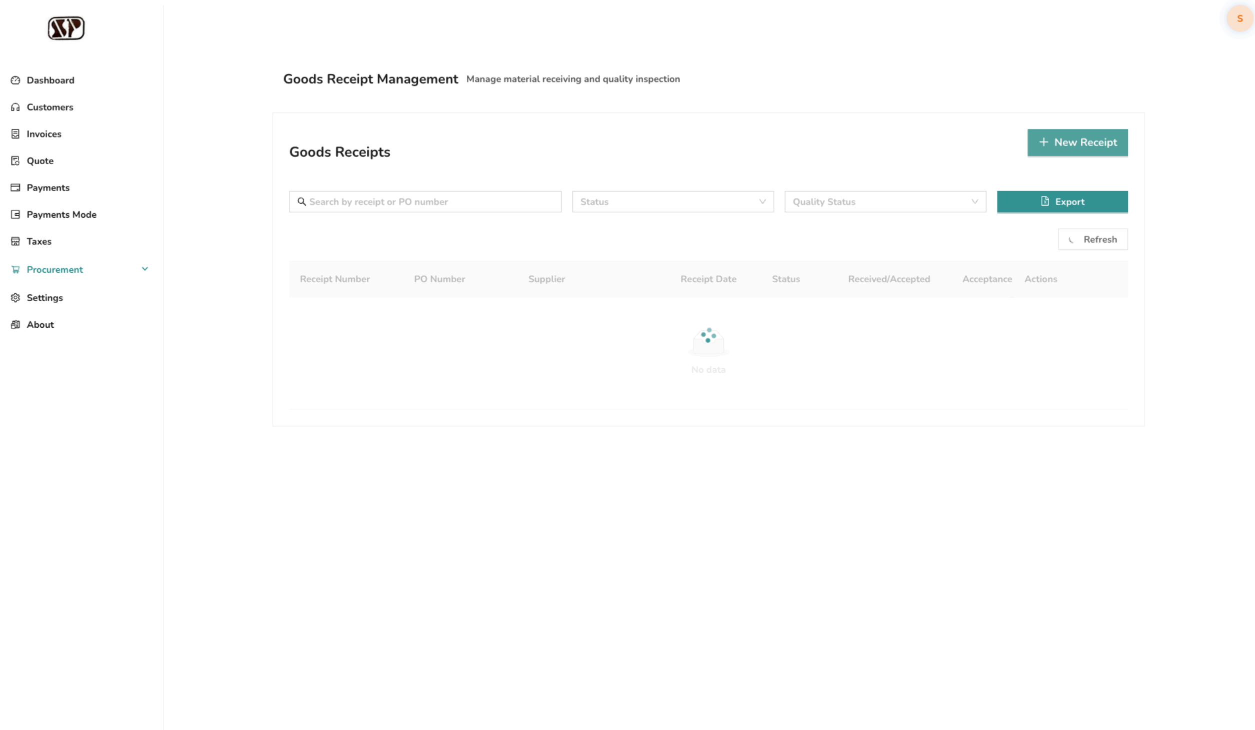
- Goods receipt created and linked to PO
- PO line item received quantities are updated
- PO status may change to "partially_received" or "received"

- Receipt can be edited or cancelled (if permitted)

Use Case 4.2.2: Track Goods Receipt Status

Objective: Monitor goods receipt status and history.

Steps:

1. Navigate to **Goods Receipts** page
2. View status column in receipt list
    - 

3. Click on receipt to view details
4. Review status information:
    - Current status
    - Linked purchase order
    - Received quantities per line item
    - Quality inspection status

Expected Result:

- Goods receipt status is visible and trackable
- Link to source purchase order is maintained
- Receipt history shows all changes

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5. System Administration

5.1 Workflow Configuration (审批流程引擎)

Use Case 5.1.1: Configure Multi-level Approval Workflow

Objective: Set up multi-level approval workflow for document types.

Prerequisites: User must have `workflow:create` permission (typically System Administrator).

Steps:

1. Navigate to **Administration → Workflows** page

2. Click **"Create"** button
   - Create Workflow
3. Fill in workflow details:
   - **Name**: Enter workflow name (e.g., "Purchase Order Approval")
   - **Display Name (ZH/EN)**: Enter display names
   - **Document Type**: Select document type (Supplier, Material Quotation, Purchase Order, Pre-Payment)
   - **Description**: Enter workflow description
   - Workflow Form
4. Add approval levels:
   - Click **"Add Level"** button
   - **Level Number**: Enter level (1, 2, 3, etc.)
   - **Approver Role**: Select approver role from dropdown
   - **Approval Type**: Select "Sequential" or "Parallel"
   - Add another level if needed
   - Multi-level Setup
5. Configure routing rules (optional):
   - **Amount-based Routing**: Set min/max amount ranges

  - **Condition-based Routing**: Set conditions for routing
  - Add multiple rules as needed

6. Click **"Save"**

7. Verify workflow is created

    - Workflow Created

Expected Result:

- Multi-level approval workflow configured
- Workflow is active and can be assigned to documents
- Approval levels are enforced when documents are submitted

Use Case 5.1.2: Configure Amount-based Approval Routing

Objective: Set up approval routing based on document amount ranges.

Prerequisites: User must have `workflow:update` permission.

Steps:

1. Navigate to **Workflows** page

2. Select an existing workflow or create a new one

3. In the workflow configuration, locate **Routing Rules** section

4. Click **"Add Rule"** button

5. Configure amount-based rule:

    - **Min Amount**: Enter minimum amount (e.g., 0)
    - **Max Amount**: Enter maximum amount (e.g., 10,000)
    - **Currency**: Select currency (default: CNY)
    - **Approver Role**: Select approver role for this range
    - **Level**: Select approval level
    - Amount-based Rules

6. Add additional rules for different amount ranges:

    - Rule 2: 10,000 - 100,000 → Procurement Manager
    - Rule 3: 100,000 - 1,000,000 → General Manager
    - Rule 4: > 1,000,000 → General Manager + Finance Director

7. Click **"Save"**

8. Verify workflow is updated

Expected Result:

- Amount-based approval routing configured
- Documents are automatically routed to appropriate approvers based on total amount
- Multiple rules can be configured for different ranges

5.2 Role and Permission Management

Use Case 5.2.1: View Roles

Objective: View all available roles in the system.

Prerequisites: User must have `role:read` permission.

Steps:

1. Navigate to **Administration** → **Roles** page
2. View role list showing:
   - Role name
   - Display names (ZH/EN)
   - Description
   - System role indicator
   - Number of permissions

Expected Result:

- All roles are displayed
- System roles are clearly marked
- Role details are visible

Use Case 5.2.2: Assign Roles to Users

Objective: Assign roles to users for access control.

Prerequisites: User must have `admin:update` permission.

Steps:

1. Navigate to **Administration** → **Users** page
2. Select a user
3. Click **"Edit"** button
4. In the **Roles** section, select roles from dropdown
5. Click **"Save"**
6. Verify roles are assigned

Expected Result:

- User has assigned roles
- User permissions are updated based on role permissions
- User can access modules based on role permissions

5.3 Approval Dashboard

Use Case 5.3.1: View Approval Dashboard

Objective: Monitor all pending approvals and approval statistics.

Prerequisites: User must have access to approval dashboard.

Steps:

1. Navigate to **Administration → Approvals** page

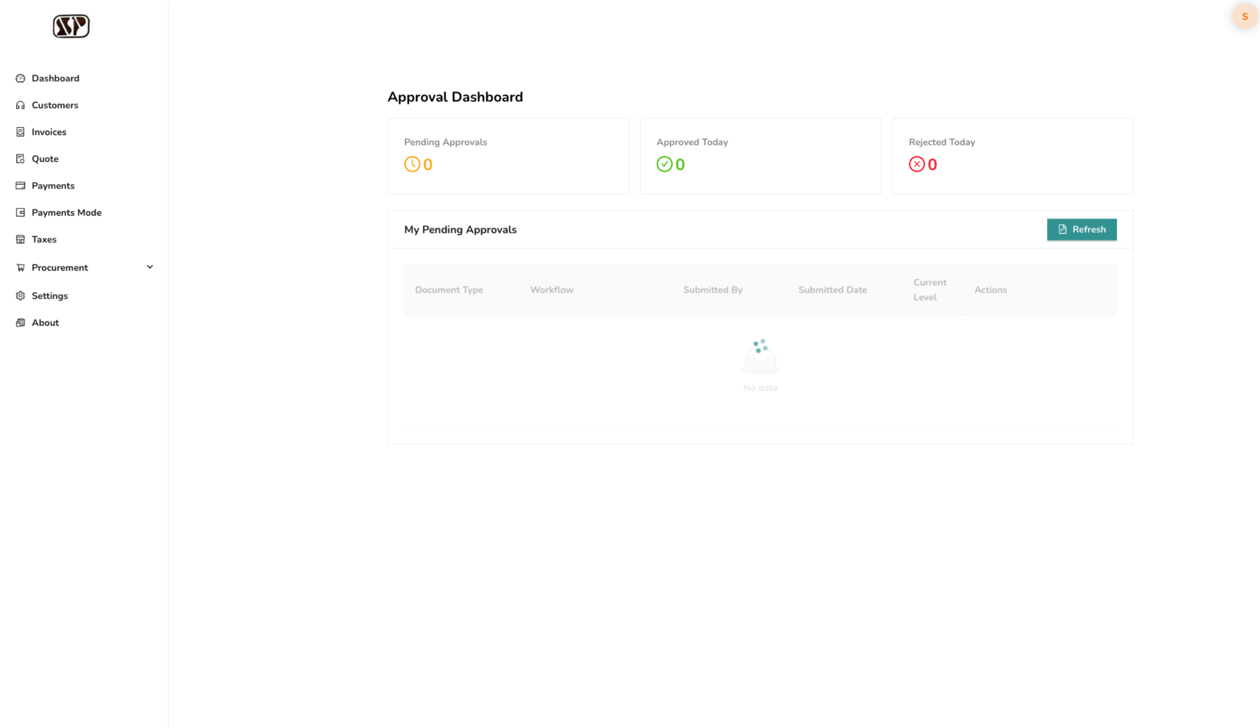
    -

2. View dashboard statistics:

    - Total pending approvals
    - Approvals by document type
    - Approvals by status
    - My pending approvals

3. View approval queue:

    - Pending approvals list
    - Document type, number, submitter
    - Submission date
    - Current approver
    - Amount (if applicable)



4. Filter approvals:
    - By document type
    - By status
    - By date range
    - My approvals only

Expected Result:

- Approval dashboard displays all relevant information
- Pending approvals are clearly visible
- Statistics are updated in real-time

Use Case 5.3.2: Approve or Reject Document

Objective: Review and approve or reject a submitted document.

Prerequisites: User must have `approve` permission for the document type.

Steps:

1. Navigate to **Approvals** page

2. Select a pending approval from the list

3. Review document details:
    - All document information
    - Attachments
    - Approval history
    - Comments from previous approvers

4. Take action:
    - Click **"Approve"** button to approve
    - Click **"Reject"** button to reject
    - Add **Comments** (optional but recommended)
5. Confirm action
6. Verify action is recorded
    - Status updates immediately
    - Next approver is notified (if applicable)
    - Submitter is notified

Expected Result:

- Document is approved or rejected
- Status is updated
- Workflow proceeds to next level or completes
- All parties are notified

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6. Data Management

6.1 Attachment Management (附件管理)

Use Case 6.1.1: Upload Attachments to Documents

Objective: Attach supporting files to any document (Supplier, Material, Quotation, PO, etc.).

Prerequisites: User must have `update` permission for the document type.

Steps:

1. Navigate to the relevant document page (Supplier, Material, Quotation, PO, etc.)
2. Open the document (create new or edit existing)
3. Locate **Attachments** section
4. Click **"Upload"** button or drag and drop files
5. Select files from your computer
6. Add file description (optional)
7. Click **"Upload"** to confirm
8. Verify files appear in attachments list

Supported File Types: PDF, DOC, DOCX, XLS, XLSX, images (JPG, PNG, etc.)

File Size Limit: Maximum 10MB per file

Expected Result:

- Files are uploaded successfully
- Attachments are visible in document
- Files can be downloaded or deleted (with permissions)

Use Case 6.1.2: Download or Delete Attachments

Objective: Manage existing document attachments.

Prerequisites: User must have appropriate permissions.

Steps:

1. Open document with attachments
2. Locate **Attachments** section
3. To download:
    - Click **"Download"** icon next to file
    - File downloads to your computer
4. To delete:
    - Click **"Delete"** icon next to file
    - Confirm deletion
    - File is removed from document

Expected Result:

- Files can be downloaded or deleted
- Deleted files are removed from system
- Document is updated immediately

6.2 Data Export (数据可导出性)

Use Case 6.2.1: Export Any List to Excel

Objective: Export list data to Excel format for reporting.

Prerequisites: User must have `export` permission for the entity type.

General Steps (applies to all list pages):

1. Navigate to any list page (Suppliers, Materials, Quotations, POs, Goods Receipts)
2. Apply filters if needed (optional)
3. Click **"Export"** or **"导出"** button
4. Wait for download to complete
5. Open downloaded Excel file

Export Features:

- Exports all visible data (respects current filters)
- Includes all columns

- Format matches system specifications
- Filename includes entity type and timestamp

Expected Result:

- Excel file downloaded successfully
- Data matches current list view
- File can be opened in Excel or other spreadsheet applications

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7. Appendices

A. Quick Reference Guide

Common Actions

Action	Location	Button Text	Permission Required
Create Supplier	Procurement → Suppliers	"Add new supplier"	`supplier:create`
Create Material	Procurement → Materials	"新增物料" / "Create"	`material:create`
Create Quotation	Procurement → Material Quotations	"New Quotation"	`material_quotation:create`
Create PO	Procurement → Purchase Orders	"Create Purchase Order"	`purchase_order:create`
Create Goods Receipt	Procurement → Goods Receipts	"New Receipt"	`goods_receipt:create`
Export Data	Any list page	"Export" / "导出"	`[entity]:export`
Submit for Approval	Document detail page	"Submit" / "提交"	`[entity]:submit`
Approve Document	Administration → Approvals	"Approve"	`[entity]:approve`

Navigation Paths

- **Suppliers**: Procurement → Suppliers
- **Materials**: Procurement → Materials
- **Material Categories**: Procurement → Material Categories
- **Material Quotations**: Procurement → Material Quotations
- **Purchase Orders**: Procurement → Purchase Orders
- **Goods Receipts**: Procurement → Goods Receipts
- **Roles**: Administration → Roles
- **Workflows**: Administration → Workflows

- **Approvals**: Administration → Approvals
- **Users**: Administration → Users

B. Keyboard Shortcuts

Shortcut	Action
`Ctrl/Cmd + S`	Save current form
`Esc`	Close modal/dialog
`Ctrl/Cmd + F`	Focus search/filter field
`Ctrl/Cmd + E`	Export current list (if available)
`Tab`	Navigate between form fields
`Enter`	Submit form (when in last field)

C. Error Handling and Troubleshooting

Common Issues and Solutions

Issue 1: "Cannot find button" or "Button not visible"

Possible Causes:

- User does not have required permission
- Document is in wrong status
- Page not fully loaded

Solutions:

1. Check user permissions with system administrator
2. Verify document status allows the action
3. Refresh the page (F5)
4. Clear browser cache if issue persists

Issue 2: "Export not working" or "Download fails"

Possible Causes:

- Browser download settings blocking downloads
- No data to export
- Network connectivity issues

Solutions:

1. Check browser download settings (allow downloads)

2. Verify data exists in the list
3. Check browser console for errors (F12)
4. Try again after a few seconds
5. Try different browser if issue persists

Issue 3: "Approval workflow not visible" or "Cannot submit"

Possible Causes:

- Workflow not configured for document type
- User lacks submit permission
- Document missing required information

Solutions:

1. Verify workflow is configured (Administration → Workflows)
2. Check user has `[entity]:submit` permission
3. Verify all required fields are filled
4. Contact system administrator

Issue 4: "File upload fails"

Possible Causes:

- File size exceeds 10MB limit
- Unsupported file type
- Network issues

Solutions:

1. Check file size (must be < 10MB)
2. Verify file type is supported
3. Try compressing large files
4. Check network connection
5. Try uploading one file at a time

Issue 5: "Cannot approve document"

Possible Causes:

- User is not the current approver
- Document not in approval status
- User lacks approve permission

Solutions:

1. Verify document is in "pending_approval" or "under_approval" status
2. Check if you are the current approver
3. Verify you have `[entity]:approve` permission

4. Check approval dashboard for your pending approvals

D. Test Users

For testing and demonstration purposes, the following test users have been created with different roles:

Test User Accounts

Email	Name	Role	Department	Approval Authority	Password
`procurement.manager@test.com`	Procurement Manager	Procurement Manager	Procurement	100,000 CNY	`test123456`
`purchaser@test.com`	John Purchaser	Purchaser	Procurement	-	`test123456`
`finance.director@test.com`	Finance Director	Finance Director	Finance	500,000 CNY	`test123456`
`finance@test.com`	Finance Personnel	Finance Personnel	Finance	-	`test123456`
`general.manager@test.com`	General Manager	General Manager	Executive	1,000,000 CNY	`test123456`
`mrp.planner@test.com`	MRP Planner	MRP Planner	Planning	-	`test123456`
`warehouse@test.com`	Warehouse Personnel	Warehouse Personnel	Warehouse	-	`test123456`
`data.entry@test.com`	Data Entry	Data Entry Personnel	Procurement	-	`test123456`

User Capabilities

Procurement Manager (`procurement.manager@test.com`)

- Can approve Purchase Orders, Suppliers, Material Quotations up to 100,000 CNY
- Full access to procurement processes
- Can manage procurement team

Purchaser (`purchaser@test.com`)

- Can create Purchase Orders, Quotations, Suppliers, Materials
- Can submit documents for approval
- Reports to Procurement Manager

Finance Director (`finance.director@test.com`)

- Can approve Pre-payments and Purchase Orders up to 500,000 CNY

- Financial oversight authority
- Manages Finance Personnel

Finance Personnel (`finance@test.com`)

- Can process payments (when payment module is implemented)
- Can view financial data
- Reports to Finance Director

General Manager (`general.manager@test.com`)

- Can approve all document types up to 1,000,000 CNY
- Executive approval authority
- Highest approval level

MRP Planner (`mrp.planner@test.com`)

- Can run MRP calculations (when MRP module is implemented)
- Can manage material requirements
- Can generate purchase orders from MRP suggestions (when implemented)

Warehouse Personnel (`warehouse@test.com`)

- Can create goods receipts
- Can track inventory (when inventory module is implemented)
- Can manage warehouse operations

Data Entry Personnel (`data.entry@test.com`)

- Can create and update master data (Suppliers, Materials)
- Can maintain data quality
- Limited to data entry operations

Security Note

⚠️ **Important**: All test users share the same password (`test123456`) for testing convenience. **This is for testing purposes only.** In production, each user should have a unique, secure password.

E. Version History

Version	Date	Changes	Author
1.0	January 27, 2026	Initial formal release. Documented all implemented features. Removed references to unimplemented features (MRP, Pre-payment). Structured as formal user manual.	Documentation Team

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Document Maintenance

Screenshot Location: `/doc/screenshots/`

Related Documents:

- Functional Requirements Plan: `doc/customer-requirements/functional-requirements-plan.md`
- Functional Implementation Plan: `doc/customer-requirements/functional-implementation-plan.md`
- Happy Path Demo Story: `doc/happy-path-demo-story.md`

Feedback and Updates: For questions, corrections, or updates to this manual, please contact the system administrator or documentation team.

End of Document