



BOMComparisons

Creatio Application for BOM Structure Comparison



Table of Contents

1. Introduction	1
2. Prerequisites	2
3. Installing the Application	2
3.1 Log in to Creatio	2
3.2 Download the Application.....	2
3.3 Upload the Package.....	3
3.4 Configure Workplace Access	4
3.5 Complete Installation	4
4. Configuring System Settings	5
4.1 Configure Email Notification Mailbox.....	5
5. Configuring Lookups	7
5.1 Organizing BOM Lookups	7
6. Lookup Configuration Order	8
7. Configure Lookups	8
7.1 Configure Levels.....	8
7.2 Configure Materials.....	9
8. How to Add Data to Lookups.....	10
8.1 Import Data from Your System	10
8.2 Create Data Manually.....	11
9. Configuring User Roles.....	12
9.1 Assign users to the BOM Employees role.....	12
9.2 Assign Manager users.....	13
9.3 Role Responsibilities.....	14
10. Group Management	15
11. Group Form Page – Creating and Viewing BOM Structure.....	15
11.1 Group Details Section.....	16
11.2 Parent Materials Section.....	17
11.3 Bill of Materials Section.....	17
11.4 Audit Approval Section.....	18
11.5 Merged Parent Materials Section.....	19
11.6 Creating the BOM Structure	17
11.7 BOM Comparison Logic	20
11.8 Viewing the Generated BOM.....	22
12. Approval Workflow.....	23
12.1 Start Approval Process.....	23
12.2 Approval Outcome.....	25

12.3 Approval Status Definitions.....	26
13. Merged Parent Materials.....	27
13.1 Creating Merged Parent Material Records.....	27
13.2 Merge Bulk Action.....	27
14. Automated Email Notifications.....	28
14.1 Complete Mismatch Notification.....	28
14.2 Partial Mismatch Notification.....	29
14.3 Approval and Rejection Notifications.....	29
15. Best Practices.....	29
16. Troubleshooting.....	30
17. Support.....	30

1. Introduction

The **BOMComparisons Application** helps organizations manage and analyze **Bill of Materials (BOM)** structures within the Creatio platform.

In many organizations, identical or partially matching materials are stored under different names or codes. This can lead to:

- Duplicate materials
- Increased procurement complexity
- Inventory redundancy
- Poor master data quality
- Inconsistent BOM structures

The BOM Compare Application enables users to:

- Import material master data
- Configure comparison groups
- Generate BOM structures
- Compare BOM hierarchies
- Identify material mismatches
- Initiate approval workflows
- Merge approved parent materials
- Track audit approvals
- Send automated email notifications

The application is designed to run within the Creatio environment and integrates with the platform's process automation capabilities.

This guide explains:

- How to install the application
- How to configure required lookups
- How to configure BOM groups
- How to compare BOM structures
- How to manage approvals
- How to merge approved materials

2. Prerequisites

Before installing the BOMComparisons application, organizations should prepare the Material master data that needs to be analyzed.

These materials may be maintained in:

- Excel
- ERP systems
- Material management systems
- Product lifecycle systems

The application assumes that all relevant materials are available in the Material lookup before creating comparison groups.

Users will define groups and select Parent Materials directly within the application interface.

Once these groups and Parent Materials are identified, the BOMCompare application can be used to analyze and compare BOM structures.

3. Installing the Application

Follow these steps to install the application.

3.1 Log in to Creatio

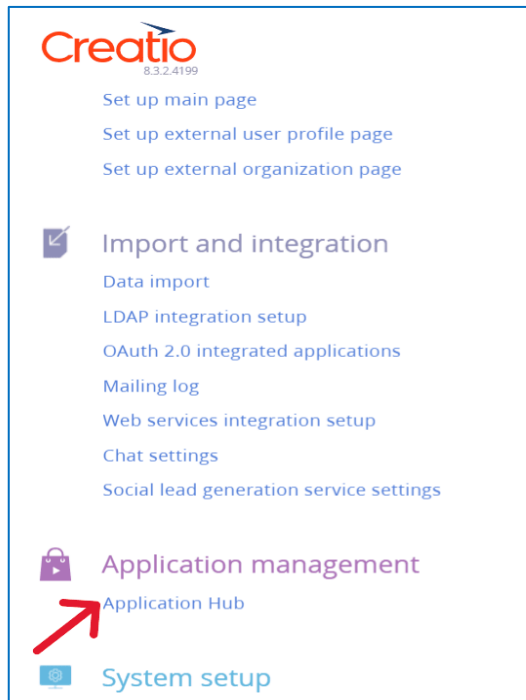
Log in to your Creatio instance using **System Administrator credentials**.

3.2 Download the Application

Download the **BOMComparisons** package from the Creatio Marketplace.

Navigate to:

System Designer → Applications Hub



Then click:

Add New Application

Go to Marketplace Powered Applications and download the package.

3.3 Upload the Package

Upload the application package and start the installation.

Creatio will automatically install:

- BOM workplace
- Lookups
- Group section
- Business processes
- Approval workflows
- Email notification processes
- System Setting for mailbox synchronization.

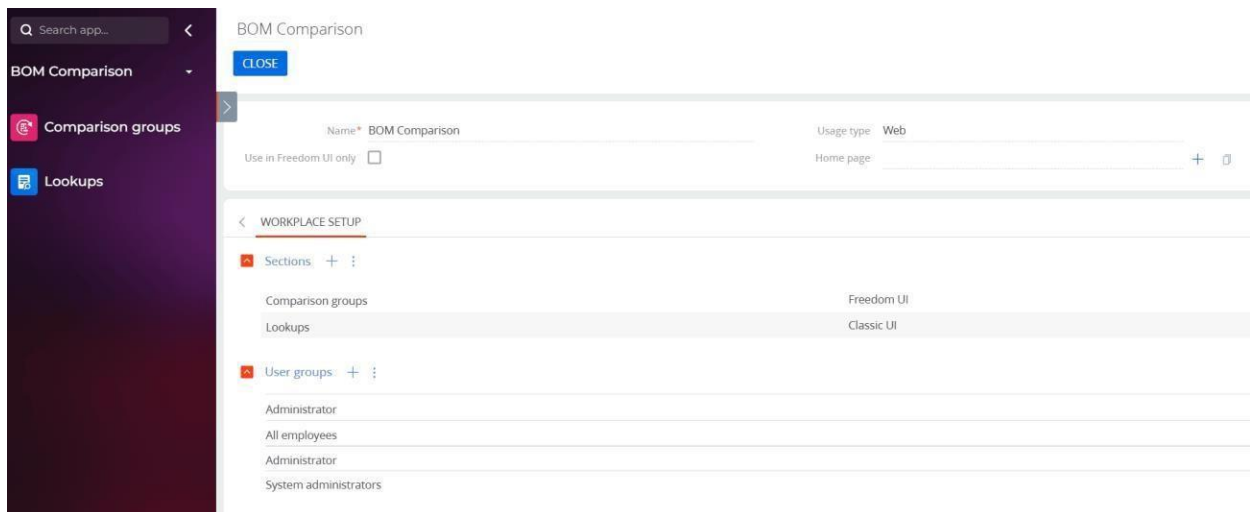
3.4 Configure Workplace Access

After installation, verify that the BOM workplace is enabled.

Navigate to:

System Settings → Workplace Setup

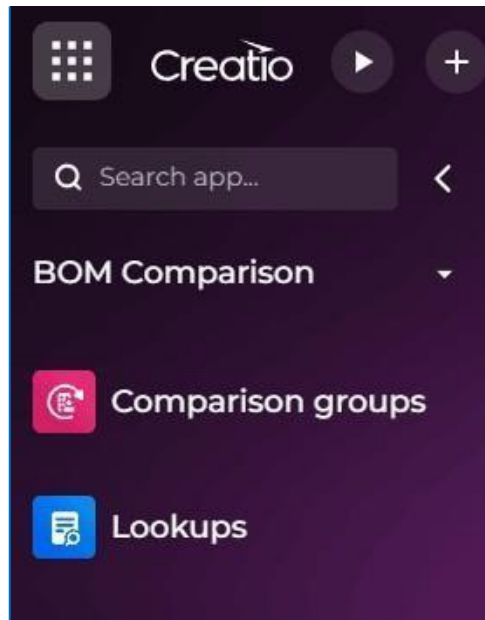
1. Locate the BOM Comparisons Workplace
2. Ensure the workplace is enabled
3. Verify that the following sections are included:
 - Comparison Groups
 - Lookups
4. Provide access to the required users or roles



3.5 Complete Installation

Once installation is finished:

1. Refresh the application
2. Navigate to the BOM workplace
3. Verify that all sections are available.



4. Configuring System Settings

Before using approval workflows and automated notifications, configure the email mailbox used by the application.

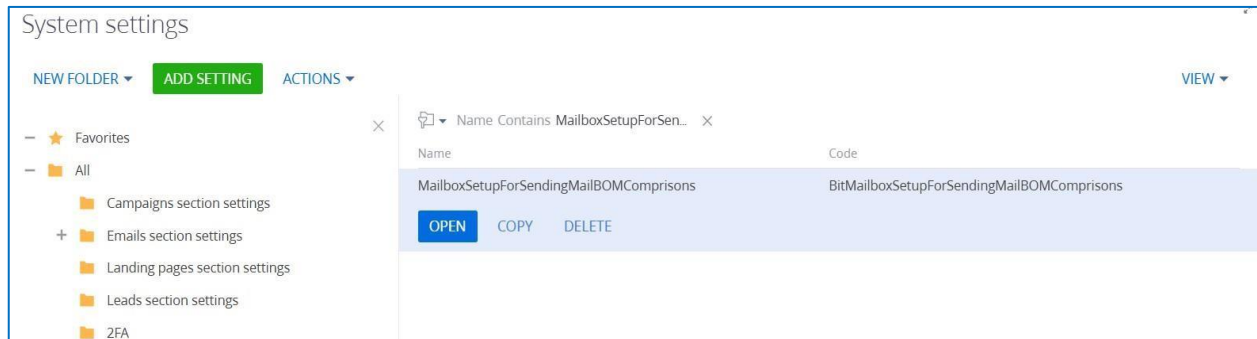
4.1 Configure Email Notification Mailbox

Navigate to:

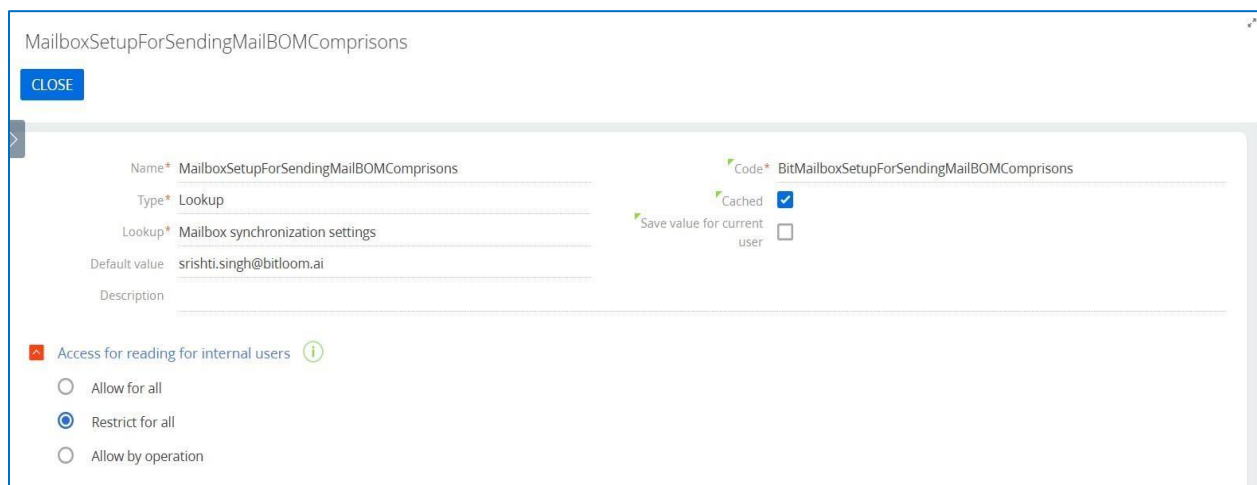
System Designer → System Settings

Search for:

MailboxSetupForSendingMailBOMComprisons



Open the setting and select the configured mailbox that will be used to send system-generated notifications.



This mailbox is used for:

- Approval request emails
- Approval confirmation emails
- Rejection emails
- Mismatch notification emails

Important:

If this setting is not configured, the application will not be able to send automated email notifications.

5. Configuring Lookups

Before using the application, required lookup data must be configured.

5.1 Organizing BOM Lookups

For better usability and easier navigation, it is recommended to organize all BOMCompare-related lookups inside a dedicated folder.

Create a separate folder named:

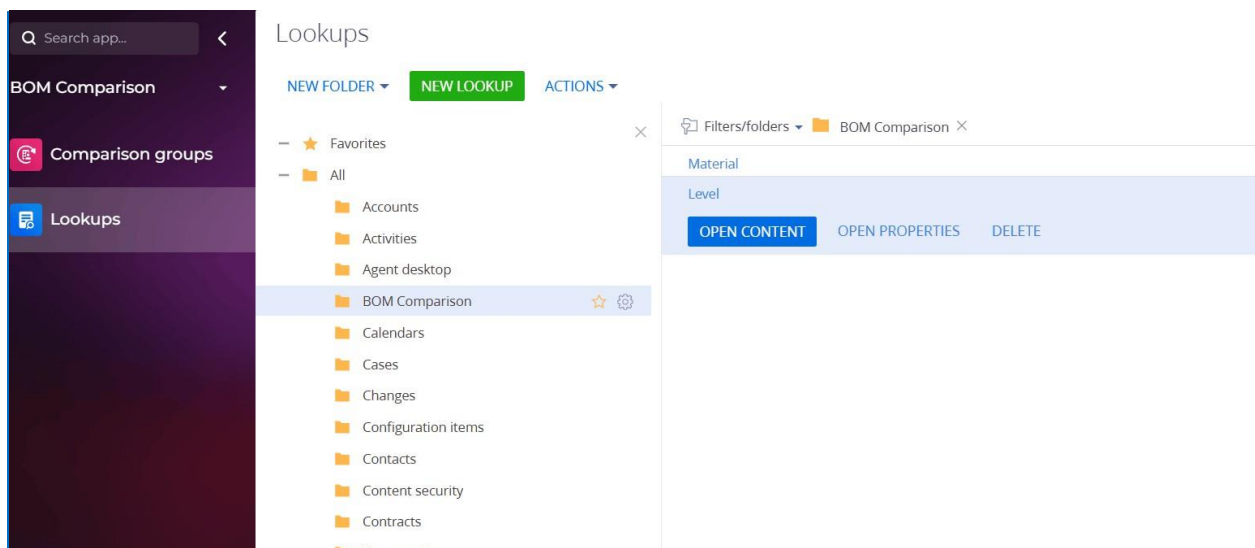
BOM

The following lookups should be added to this folder:

- Level
- Material

By organizing the lookups in a single folder:

- Users can quickly access all related lookups
- Navigation becomes simpler
- Administrators can manage BOM-related data more efficiently



6. Lookup Configuration Order

To ensure the application works properly, configure lookups in the following order:

1. Level
2. Material

The Bill of Material lookup is automatically populated by the system, so users do not need to manually add records there.

7. Configure Lookups

7.1 Configure Levels

Levels define the hierarchy of materials in the BOM structure.

Navigate to:

Lookups → Level

Level no	Level name
----------	------------

The system is already configured with Levels from 1 to 9.

If a BOM structure contains more than 9 hierarchy levels, users must manually add additional levels.

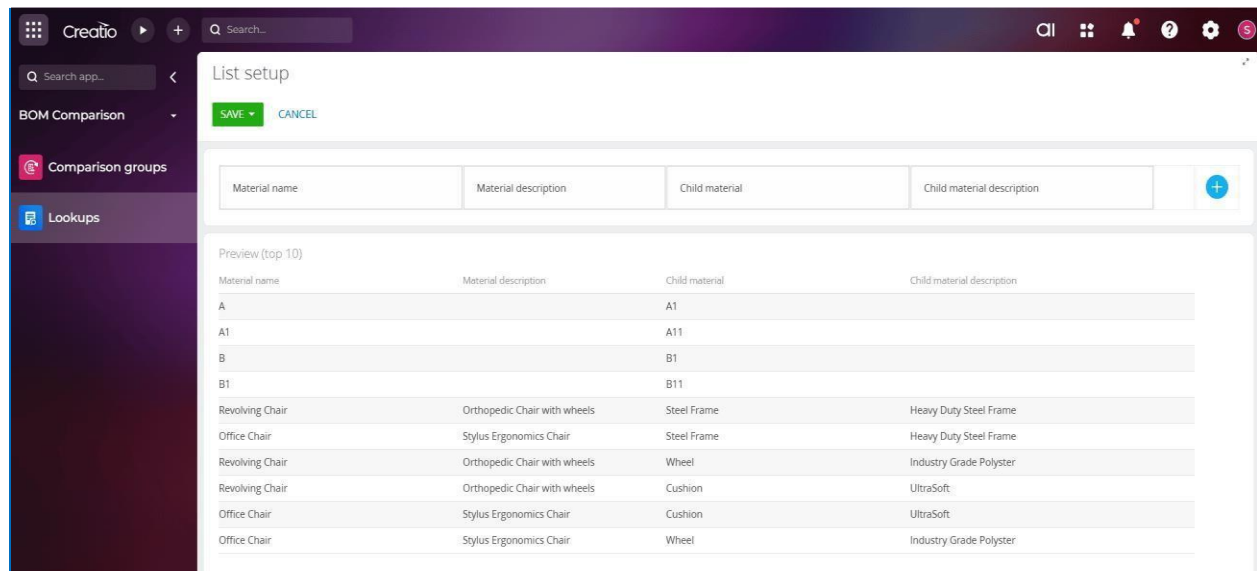
Levels help the system determine how materials relate to each other within the BOM hierarchy.

7.2 Configure Materials

The Material lookup stores all materials used in BOM structures.

Navigate to:

Lookups → Material



Material name	Material description	Child material	Child material description
A		A1	
A1		A11	
B		B1	
B1		B11	
Revolving Chair	Orthopedic Chair with wheels	Steel Frame	Heavy Duty Steel Frame
Office Chair	Stylus Ergonomics Chair	Steel Frame	Heavy Duty Steel Frame
Revolving Chair	Orthopedic Chair with wheels	Wheel	Industry Grade Polyester
Revolving Chair	Orthopedic Chair with wheels	Cushion	UltraSoft
Office Chair	Stylus Ergonomics Chair	Cushion	UltraSoft
Office Chair	Stylus Ergonomics Chair	Wheel	Industry Grade Polyester

Important fields include:

Field	Description
Material name	Name of the material
Material description	Description of the material
Child material	Component material in the hierarchy
Child material description	Description of the child material

Important Rule:

All materials must be maintained within a single unified dataset in the Material lookup.

The dataset may include:

- Assemblies
- Sub-assemblies
- Individual components

Parent Materials do not need to be configured separately.

Users will select Parent Materials directly from the Material lookup when creating comparison groups.

8. How to Add Data to Lookups

Data in lookups can be added in two different ways.

8.1 Import Data from Your System

If the organization already has material data stored in another system, the data can be imported directly into Creatio.

Steps:

1. Open the required lookup
2. Click Data Import
3. Upload an Excel or CSV file
4. Map the columns
5. Run the import process

This method is useful for importing large datasets.

Data import: Upload file

CLOSE BACK NEXT

Drag and drop file here or

Select file

Where do you want the data imported to? SELECT TEMPLATE

CONTACT ACCOUNT MATERIAL

NEXT

Important:

Excel column names should match Creatio field names for automatic mapping.

If the names do not match, users must manually map the columns.

8.2 Create Data Manually

Users can also create records manually inside the lookup.

Steps:

1. Open the required lookup
2. Click New
3. Enter the required values
4. Click Save

9. Configuring User Roles

The BOM Comparisons application includes pre-configured organizational roles to control access to the approval workflow.

The following roles are installed automatically with the application:

- **BOM Employees**
- **BOM Employees. Managers group**

After installing the application, the System Administrator should assign users to these roles according to their responsibilities.

9.1 Assign Users to the BOM Employees Role

Navigate to:

System Designer → Organizational Roles

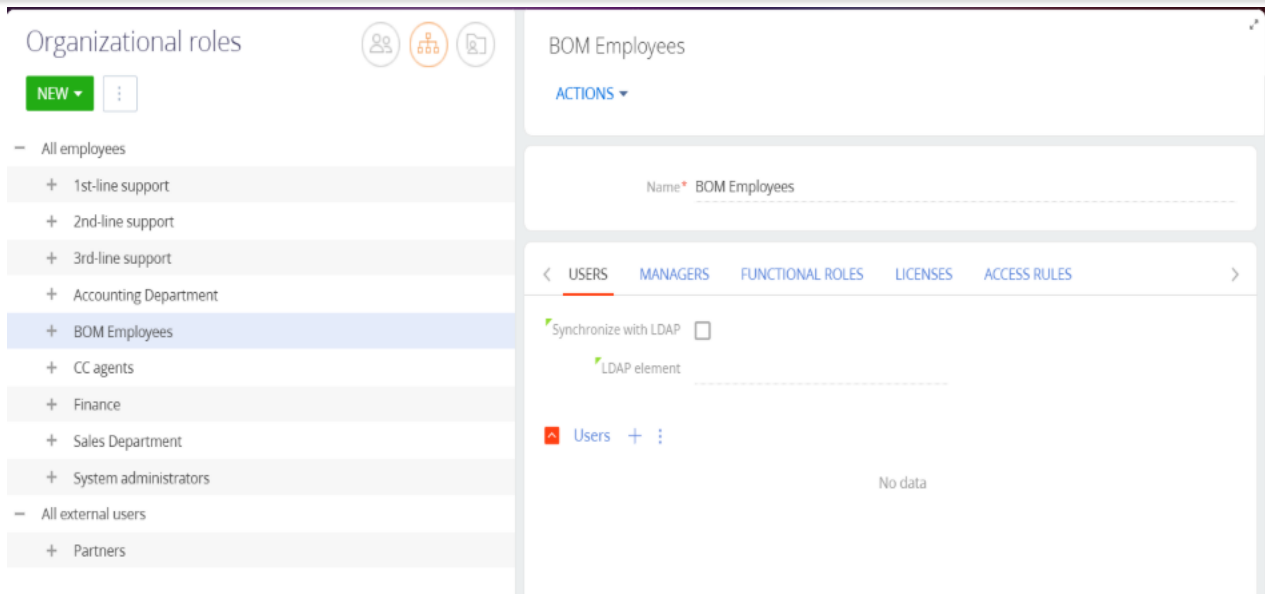
Open the BOM Employees role.

Select the Users tab and click + to add the users who will use the BOM Comparisons application.

These users will be able to:

- Create Comparison Groups
- Add Parent Materials
- Generate BOM Structures
- Review BOM comparison results
- Submit approval requests

Note: Any user who needs to work with the BOM Comparisons application should be added to the BOM Employees role.



9.2 Assign Manager Users

Open the BOM Employees organizational role.

Navigate to the Managers tab.

Add the users who should be responsible for reviewing BOM approval requests.

The selected users become members of the BOM Employees. Managers group management role.

Only users assigned as managers can:

- Receive approval requests
- Approve BOM comparison requests
- Reject BOM comparison requests

The screenshot displays the 'Organizational roles' section on the left, with a list of roles including 'BOM Employees'. The right pane shows the configuration for the 'BOM Employees' role. Under the 'MANAGERS' tab, a table lists users assigned to the role. A context menu is open over the 'Managers' header, showing 'Add existing' and 'Add new' options.

Contact	Job title	Mobile phone	User login
James Smith	Sales manager	+44 (787) 121 4006	Test 1

9.3 Role Responsibilities

Role	Responsibility
BOM Employees	Create comparison groups, generate BOM structures, submit approval requests, and view approval status.
BOM Employees. Managers group	Review submitted approval requests and approve or reject BOM comparison requests.

Important

The **BOM Employees** and **BOM Employees. Managers** group roles are included with the application and are installed automatically.

The System Administrator only needs to assign users to these roles after installation.

- Add all users who will work with the application to the **BOM Employees** role.
- Add only the designated approvers to the Managers tab of the **BOM Employees** role.
- Users assigned as managers will be responsible for approving or rejecting submitted BOM comparison requests.

10. Group Management

After importing material data, users can create comparison groups directly in the Group section.

Navigate to:

BOM → Comparison Groups

Each group represents a set of Parent Materials whose BOM structures will be analyzed together.

11. Group Form Page – Creating and Viewing BOM Structure

When a user opens a Group record, the Group Form Page is displayed.

This page allows users to:

- Configure Parent Materials
- Generate BOM structures
- Compare BOM hierarchies
- Review audit results
- Start approval workflows
- Manage merged materials

11.1 Group Details Section

The Group Details section stores the main group information.

Important fields include:

Field	Description
Group Name	Name of the comparison group
Count of parent material	Number of Parent Materials
Status	Current approval status
Group complete matched	Indicates complete BOM match
Group complete mismatched	Indicates complete mismatch
Group mismatched at level	Displays mismatch hierarchy level

The screenshot displays the 'BOM Comparison Workspace' interface. On the left is a sidebar with a search bar and navigation links for 'BOM Comparison', 'Comparison groups', and 'Lookups'. The main area is titled 'BOM Comparison Workspace' and includes a status bar with 'Draft', 'Pending manager review', and 'Approved' stages. Below this, the 'GROUP DETAILS' section is visible, containing fields for 'Group name', 'Count of parent material', and 'Created by Srishti Singh'. To the right, there are tabs for 'PARENT MATERIALS', 'BILL OF MATERIALS', and 'MERGED PARENT MATERIALS'. The 'PARENT MATERIALS' tab is active, showing a list of materials with columns for 'Material' and 'Material description', and a '+ New' button at the bottom.

11.2 Parent Materials Section

The Parent Materials section allows users to select one or more top-level materials from the Material dataset.

These materials represent the assemblies whose BOM structures will be generated and compared.

Users can:

- Add Parent Materials manually
- Select materials from the lookup
- Modify existing records

The screenshot displays the 'BOM Comparison Workspace' interface. At the top, there are buttons for 'Create BOM', 'Save', and 'Cancel'. Below this is a progress bar with stages: 'Draft', 'Pending manager review', and 'Approved'. The main area is divided into three tabs: 'PARENT MATERIALS', 'BILL OF MATERIALS', and 'MERGED PARENT MATERIALS'. The 'PARENT MATERIALS' tab is active, showing a search bar with the text 'Parent materials' and a search icon. Below the search bar is a table with columns 'Material' and 'Material description'. A dropdown menu is open under the 'Material' column, showing a list of materials: 'A', 'A', 'A1', 'A1', 'A11', and 'A111'. To the right of the table, there are buttons for 'Save all' and 'Discard'. On the left side of the workspace, there is a 'GROUP DETAILS' panel with fields for 'Group name' (test 3), 'Count of parent material' (2), and 'Created by' (Srishti Singh).

11.3 Bill of Materials Section

The Bill of Materials section displays the hierarchical BOM structure generated for the selected Parent Materials.

The section displays:

- Material hierarchy
- Parent-child relationships
- BOM levels
- Material descriptions

PARENT MATERIALS

BILL OF MATERIALS

MERGED PARENT MATERIALS

⬆️

⬆️

Bill of materials

🔍

Filter

☰

Level filter

Level ⬆️	Material name	Material description	Child material	Child material description
1 1	MAT-2001	Pump Model B	COMP-A1	Pump Housing
2 1	MAT-2001	Pump Model B	COMP-A3	Fastener Kit
3 1	MAT-2001	Pump Model B	COMP-A2	Shaft Assembly
4 1	Car Body	this is car body	Car Engine	this is car engine
5 2	Car Engine	Car Engine assembly	Cooling System	Cooling System sub assembly
6 3	Cooling System	Cooling System sub assembly	Coolant Pipe	Coolant Pipe component
7 3	Cooling System	cooling system sub assembly	Cylinder	Engine Block sub assembly
8 3	Cooling System	Cooling System sub assembly	Radiator	Radiator component/radiator
9 4	Cylinder	This is the cylinder of the bike	Iron	Iron

11.4 Audit Approval Section

The Audit Approval section displays:

- Approval status
- Match indicators

This section allows users to monitor the approval lifecycle directly from the Group Form Page.

AUDIT APPROVAL

Group complete mismatched

Group mismatched at level

2

Group complete matched

Status

Draft

11.5 Merged Parent Materials Tab

The Merged Parent Materials tab stores merged material records created after approval.

These records represent Parent Materials identified as duplicate or equivalent structures.

Users can:

- View merged records
- Review merge details

PARENT MATERIALS			
BILL OF MATERIALS			
MERGED PARENT MATERIALS			
Merged parent materials			
Name	Description	Group	
1 Merged_parent material00061	Merged from parent materials : A, A1	group of A's	

11.6 Creating the BOM Structure

To generate the BOM structure:

1. Open the required Group record
2. Add Parent Materials
3. Click **Create BOM**

The screenshot shows the 'BOM Comparison Workspace' interface. At the top, there is a navigation bar with a back arrow, the title 'BOM Comparison Workspace', a green 'Create BOM' button, and a 'Close' button. Below the navigation bar is a progress bar with three stages: 'Draft' (active), 'Pending manager review', and 'Approved'. The main content area is divided into two panels. The left panel, titled 'GROUP DETAILS', contains fields for 'Group name' (test 3), 'Count of parent material' (2), and 'Created by' (Srishti Singh). The right panel, titled 'PARENT MATERIALS', has tabs for 'PARENT MATERIALS', 'BILL OF MATERIALS', and 'MERGED PARENT MATERIALS'. Under the 'PARENT MATERIALS' tab, there is a search bar 'Parent materials Q' and a table with columns 'Material' and 'Material description'. The table contains two rows: '1 A' and 'C'. A '+ New' button is at the bottom of the table.

The system automatically:

- Retrieves material hierarchy
- Generates BOM records

Then user can:

- Compare BOM structures
- Updates audit indicators

11.7 BOM Comparisons Logic

The system generates BOM structures across all selected Parent Materials then user can compare the BOM generated and take the approval audit decisions.

The comparison result determines the workflow outcome.

Complete Match

Condition:

- All Parent Materials contain identical BOM structures
- All hierarchy levels match successfully

Result:

- The user can manually select the:
- Group complete matched
- checkbox.
- Once the Complete Match checkbox is selected, the:
- Start Approval
- button becomes visible on the Group Form Page.
- Users can then initiate the approval workflow for the comparison group.

Mismatch at Level

Condition:

- BOM structures partially match
- One or more hierarchy levels difference between Parent Materials

Result:

- The Group mismatched at level field is automatically populated by the system.
- An automated notification email is sent to the Group creator.
- Approval workflow is not available for partially matched groups.

Complete Mismatch

Condition:

- All Parent Materials contain different BOM structures
- No hierarchy levels match

Result:

- The Group complete mismatched checkbox is automatically selected.
- An automated mismatch notification email is sent to the Group creator.
- Approval workflow is not available for completely mismatched groups.

11.8 Viewing the Generated BOM

After the business process completes, the generated BOM records appear in the Bill of Materials section.

These records are automatically stored in the Bill of Material lookup.

PARENT MATERIALS		BILL OF MATERIALS		MERGED PARENT MATERIALS	
 Merged parent materials  					
	Name ↕	:	Description ^	Group	+ :
1	Merged_parent material00061		Merged from parent materials : A, A1		group of A's

12. Approval Workflow

The approval workflow is used when BOM structures completely match.

12.1 Start Approval Process

After the BOM structures are generated and validated as a **Complete Match**, users can initiate the approval workflow.

The Start Approval button becomes visible only when:

- All Parent Materials completely match
- The Group complete matched checkbox is selected

To start the approval process:

1. Open the required Group record
2. Verify the BOM comparison result
3. Select the Group complete matched checkbox
4. Click **Start Approval**

← BOM Comparison Workspace

Save Start Approval Cancel

Draft Pending manager review Approved

GROUP DETAILS

Group name *
test 3
Count of parent material *
2
Created by
Srishti Singh

AUDIT APPROVAL

Group complete mismatched
☐
Group mismatched at level
Group complete matched
☒
Status
Draft

PARENT MATERIALS BILL OF MATERIALS MERGED PARENT MATERIALS

Bill of materials

Filter

Level filter

Level	Material name	Material description	Child material	Child material description	Top
1 1	C	C	C4	C4	C
2 1	A	A	A2	A2	A
3 1	A	A	A1	A1	A
4 1	C	C	C1	C1	C
5 2	C1	C1	C2	C2	C
6 2	A1	A1	A11	A11	A
7 2	A1	A1	A12	A12	A
8 2	C1	C1	C3	C3	C
9 2	A2	A1	A21	A21	A
10 2	C4	C4	C2	C2	C

This action triggers the approval workflow process.

The system automatically:

- Creates an approval request
- Updates the Group Status to **Pending Manager Review**
- Sends an approval notification
- Creates a Merged Parent Material record
- Adds the merged record into the Merged Parent Materials tab

The screenshot displays the 'BOM Comparison Workspace' interface. At the top, there is a progress bar with three stages: 'Draft' (highlighted in orange), 'Pending manager review', and 'Approved'. On the right side of the workspace, there are two buttons: 'Start Approval' (green) and 'Close' (grey). The main content area is divided into two sections. The left section, titled 'GROUP DETAILS', contains fields for 'Group name' (test 3), 'Count of parent material' (2), and 'Created by' (Srishti Singh). Below this is the 'AUDIT APPROVAL' section, which includes checkboxes for 'Group complete mismatched' (unchecked), 'Group mismatched at level' (unchecked), and 'Group complete matched' (checked). The 'Status' is listed as 'Pending manager review'. The right section, titled 'MERGED PARENT MATERIALS', has tabs for 'PARENT MATERIALS', 'BILL OF MATERIALS', and 'MERGED PARENT MATERIALS' (selected). It shows a table with columns 'Name', 'Description', and 'Group'. The table is currently empty, displaying 'No data'.

The generated Merged Parent Material record contains:

- Name
- Group name
- Description

The Description field stores the Parent Materials used to create the merged material.

When an approval request is submitted, it is routed to a user assigned to the BOM Employees. Managers group management role. Only manager users can review the request and either approve or reject it. Users assigned only to the BOM Employees role can create and submit requests but cannot complete the approval process.

12.2 Approval Outcome

Approved

If the request is approved:

- Status changes to Approved
- Merge records are finalized
- Approval confirmation email is sent

The screenshot displays the 'BOM Comparison Workspace' interface. At the top, a progress bar indicates the workflow stages: Draft, Pending manager review, and Approved. The 'Approved' stage is currently active. The interface is divided into two main sections. On the left, the 'GROUP DETAILS' panel shows the group name 'test 3', a count of parent material '2', and the creator 'Srishti Singh'. Below this, the 'AUDIT APPROVAL' section shows checkboxes for 'Group complete mismatched' (unchecked), 'Group mismatched at level' (unchecked), and 'Group complete matched' (checked). The 'Status' is set to 'Approved'. The 'Approvals' section shows 'Approval purpose' as 'Approval required' and 'Approval required' as 'APPROVED'. At the bottom, a summary bar shows 'Positive: 1', 'Negative: 0', and 'Pending: 0'. The main area on the right, titled 'MERGED PARENT MATERIALS', contains a table with one entry: 'Merged_parent material00062', described as 'Merged from parent materials : A, C', belonging to the group 'test 3'.

Name	Description	Group
1 Merged_parent material00062	Merged from parent materials : A, C	test 3

Rejected

If the request is rejected:

- Status changes to Rejected
- Merge creation is stopped
- Rejection email is sent

12.3 Approval Status Definitions

Status	Meaning
Draft	Initial stage
Pending Manager Review	Awaiting approval
Approved	Merge approved
Rejected	Merge rejected

13. Merged Parent Materials

Merged Parent Materials represent approved merge results.

These records are created when Parent Materials are identified as equivalent structures.

13.1 Creating Merged Parent Material Records

Merged Parent Material records may be created:

- Automatically during approval

Important fields include:

Field	Description
Name	Merge record name
Description	Merge description
Approved By	Approver
Sequence Number	Merge sequence
Group	Related comparison group
Comment	Additional notes

← Merged parent materials

Close

Attachments

Name *
Merged_parent material00062
Created by
Srishti Singh

GENERAL INFORMATION

Description Merged from parent materials : A, C
Approved by Srishti Singh

Notes
Please write comment(if any)

14. Automated Email Notifications

The application automatically sends email notifications based on BOM comparison results and approval decisions.

Notification scenarios include:

- Complete Match approval requests
- Approval confirmation
- Approval rejection
- Complete mismatch detection
- Partial mismatch detection

The mailbox used for sending these notifications is configured through the:

Mail box Setup For Sending Mail BOM Comprisons

System Setting.

14.1 Complete Mismatch Notification

Triggered when:

Group complete mismatched = True

Email Subject: Group Complete Mismatch Detected: [Group Name]

Recipient:

- Group creator

14.2 Partial Mismatch Notification

Triggered when:

Group mismatched at level contains a value

Email Subject: Group Mismatch Detected at Level-[Level Name] for [Group Name]

Recipient:

- Group creator

14.3 Approval and Rejection Notifications

Approval and rejection emails are automatically sent after approval decisions.

Recipients include:

- Group creator
- Approver

15. Best Practices

To ensure accurate BOM comparison:

- Maintain complete material data
- Avoid duplicate material names
- Configure hierarchy levels correctly
- Validate Parent Material selection
- Review mismatch indicators before approval
- Verify email mailbox configuration
- Ensure material relationships are properly maintained

16. Troubleshooting

Issue	Possible Cause	Solution
BOM records not generated	Missing Parent Materials	Verify material lookup data
Approval emails not sent	Mailbox setting not configured	Configure email system setting
Incorrect mismatch result	Invalid hierarchy data	Verify Level configuration
Merge records not created	Approval not completed	Complete approval workflow
Missing BOM hierarchy	Incomplete material data	Verify child material relationships

17. Support

For support or questions regarding the BOMCompare Application, please contact:

Bitloom Support Team

Email:

sales@bitloom.ai