

Smart Approval Matrix Application – Detailed Documentation

1. Overview

The Smart Approval Matrix Application is a configurable, reusable approval framework built on the Creatio platform.

It enables organizations to define approval hierarchies dynamically using a matrix-driven approach rather than hardcoding logic in business processes.

The application supports both parallel and sequential approvals, automatically determined based on approval levels defined in the matrix.

This ensures flexibility, scalability, and reduced dependency on development teams for approval-related changes.

2. Problem Statement

In many organizations, approval workflows are complex and frequently change based on business requirements such as amount thresholds, departments, or compliance needs.

Traditional Creatio implementations rely on static business processes, which:

- Require developer intervention for changes
- Increase maintenance overhead
- Are difficult to scale across multiple entities

This creates inefficiencies and delays in adapting to business changes.

3. Solution Description

This application introduces a dynamic Approval Matrix where users configure approvers and approval levels.

The system interprets the matrix as follows:

- Same approval level → Parallel approvals (all approvers act simultaneously)
- Different approval levels → Sequential approvals (step-by-step execution)

A reusable business process reads the matrix and dynamically creates approval records accordingly, ensuring that approval logic is entirely configuration-driven.

4. Key Features

- Dynamic Approval Matrix Configuration:
Users can define approval logic without modifying processes.
- Parallel and Sequential Approval Handling:
Automatically determines approval execution type based on levels.
- Multi-Level Approval Support:
Supports unlimited approval levels for complex workflows.
- Reusability Across Sections:
Can be applied to any Creatio object (Case, Opportunity, Custom objects).
- Button-Based Trigger:
Simple UI-based initiation via a button.
- Mini Page Interaction:
User-friendly interface for selecting matrix and initiating approvals.
- Automated Approval Creation:
System dynamically generates approval records and assigns approvers.

5. Use Cases

- Loan Approval:
Multi-level approval involving risk, compliance, and management.
- Sales Discount Approval:
Different approval levels based on discount percentage.
- Contract Approval:
Legal, finance, and management approvals.
- Purchase Requests:
Budget-based approvals across departments.
- Case Escalation:
Escalation approvals for critical support cases.

6. Setup Instructions

Step 1: Configure Approval Matrix

- Navigate to Approval Matrix section

- Add records with:
 - Approval Level
 - Approver (User / Role)
- Same level = Parallel, Different levels = Sequential

Step 2: Add Button to Section

- Add a custom button on target section (e.g., Opportunity)
- Label: "Start Approval"

Step 3: Link Button to Process

- Process Name: "Process Start MultiLevel Approval"
- Pass parameters:
 - Record Id
 - Section Name

7. Execution Flow

1. User clicks "Start Approval" button
2. Mini page opens
3. User selects approval matrix
4. Process is triggered
5. System reads matrix records
6. Logic evaluates approval levels:
 - Same level → Parallel approvals
 - Different levels → Sequential approvals
7. Approval records are created
8. Notifications are sent
9. Approvers take action

8. Approval Logic

The core logic of the application is based on approval levels.

Parallel Approval:

- All approvers with same level receive requests simultaneously
- Approval completion depends on defined rules (all/any)

Sequential Approval:

- Approvals are executed level by level
- Next level is triggered only after previous is completed

9. Benefits

- No-Code Configuration:
Business users can manage approvals without development.
- Flexibility:
Easily adapt approval logic to changing requirements.
- Scalability:
Supports complex multi-level enterprise workflows.
- Reusability:
Single solution works across multiple entities.
- Faster Implementation:
Reduces time required for approval setup.

10. Future Enhancements

- SLA and Escalation Handling
- Delegation and Out-of-Office Support
- Approval Analytics Dashboard
- Email-Based One-Click Approval
- Mobile Approval Support
- Conditional Approval Routing