

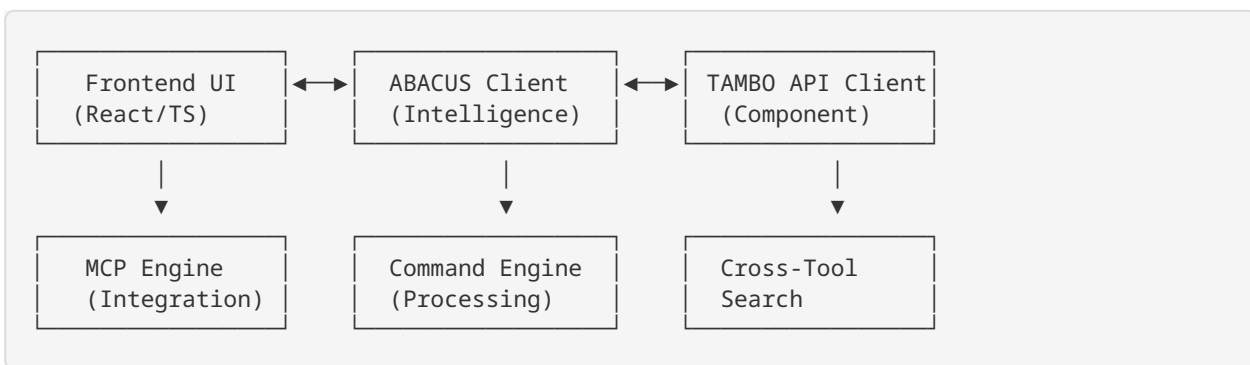
TAMBO MCP Integration Suite - Training Overview

Executive Summary

The TAMBO MCP Integration Suite is a sophisticated system that combines:

- **TAMBO API** for component management
- **MCP (Model Context Protocol)** for cross-tool integration
- **ABACUS Intelligence** for smart routing and decision making
- **React/TypeScript** frontend for user interaction

System Architecture



Key Features

1. Intelligent Routing System

- **ABACUS-powered** decision making
- **Multi-tier support** (Standard, Pro, Enterprise)
- **Context-aware** routing logic
- **Real-time processing** with confidence scoring

2. Component Management

- **Safe modification** with validation guards
- **Real-time sync** across tools
- **Natural language** instructions
- **Version control** integration

3. MCP Integration

- **Cross-tool search** capabilities
- **Unified knowledge base**
- **Real-time synchronization**
- **Command processing engine**

Core Components

TamboRoutingConsolePro

Location: `src/components/TamboRoutingConsolePro.tsx`

- Primary interface for routing operations
- Supports multiple operation modes
- Environment-aware (development/production)
- Real-time response handling

ABACUS Client

Location: `src/services/abacusClient.ts`

- Intelligent routing decisions
- Component update analysis
- Agent diagnostics
- Conversation history tracking

TAMBO Client

Location: `src/services/tamboClient.ts`

- Component CRUD operations
- Safety guardrails and rate limiting
- Protected component management
- Real API integration

MCP Integration Layer

Location: `src/mcp/tambo-integration.ts`

- Bridge between TAMBO and MCP
- Natural language processing
- Embedding generation
- Knowledge base updates

User Roles & Permissions

1. CEO/Demo User

- Full access to all features
- Can modify inputs during demos
- Override safety restrictions
- View all diagnostics and logs

2. Developer

- Component modification rights
- MCP integration access
- Limited to non-protected components
- Can run diagnostics

3. Content Manager

- Content routing access
- Feedback analysis tools
- Limited component viewing

- Basic search capabilities

4. Support Agent

- Triage routing access
- Error diagnostic tools
- Customer feedback analysis
- Basic component information



Safety Features

Rate Limiting

- **30 requests/minute** maximum
- Automatic window reset
- Visual feedback on limits
- Graceful degradation

Protected Components

- Core layout components
- Navigation systems
- Error boundaries
- App shell structure

Change Validation

- Code pattern scanning
- Dangerous code detection
- Safe mode enforcement
- Change rollback capability



Monitoring & Analytics

Real-time Metrics

- Request processing times
- Routing confidence scores
- Error rates and types
- Component modification history

Logging System

- All routing decisions
- Component changes
- Error diagnostics
- User activity tracking



Integration Points

External APIs

- **TAMBO API:** `https://api.tambo.co/v1`

- **ABACUS Chatbot:** <https://apps.abacus.ai/chatllm>
- **MCP Endpoints:** Custom protocol integration

Data Flow

1. User input → Frontend validation
2. ABACUS intelligence → Routing decision
3. TAMBO API → Component operations
4. MCP sync → Cross-tool updates
5. Response → User feedback



Next Steps

After reading this overview:

1. Review the **Technical Implementation Guide** (02_TECHNICAL.md)
2. Study the **API Documentation** (03_API_GUIDE.md)
3. Practice with the **User Guide** (04_USER_GUIDE.md)
4. Keep the **Troubleshooting Guide** (05_TROUBLESHOOTING.md) handy



Quick Support

- **Technical Issues:** Check troubleshooting guide
 - **API Errors:** Verify credentials and rate limits
 - **Component Problems:** Ensure safe mode compliance
 - **Integration Failures:** Check MCP sync status
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