

Shadow AI - Agent Overview

Version 13.0.0 | 480 Services | Enterprise-Ready

1. What is Shadow AI?

Shadow AI is an autonomous AI coding agent with **480 specialized services** that can:

- Generate code in any language
- Plan and execute complex tasks autonomously
- Self-debug and self-heal errors
- Integrate with OpenAI, Anthropic, Google, Ollama
- Manage entire software development lifecycle

Tech Stack: Electron + React + TypeScript + Node.js

2. Core Service Categories

Category	Count	Key Services
Code Generation	150+	FullStackGenerator, APIGenerator, ComponentGenerator
AI/ML	50+	NeuralNetworkDesigner, NLPPipeline, ComputerVision
DevOps	40+	KubernetesArchitect, TerraformDesigner, MonitoringStack
Security	30+	SecurityScanner, ThreatModeling, Encryption
Enterprise	40+	Authentication, PaymentIntegration, Analytics
Testing	25+	TestGenerator, E2EService, PerformanceProfiler

3. Key Capabilities

Autonomous Agent Features

- **GoalDecomposerService** - Break complex goals into tasks
- **SelfReflectionService** - Evaluate and improve decisions
- **ErrorRecoveryService** - Auto-detect and fix errors
- **RecursiveSelfImprovementService** - Improve own code

AI Model Support

- OpenAI (GPT-4, GPT-3.5)
- Anthropic (Claude 3)
- Google (Gemini Pro)
- Ollama (Local models)

Code Generation

- 50+ languages supported
 - Full-stack applications
 - APIs (REST, GraphQL, gRPC)
 - Mobile apps (React Native, Flutter)
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4. Enterprise Features

Feature	Services
Authentication	JWT, OAuth, SSO, MFA
Payments	Stripe, PayPal, Crypto
Analytics	Event tracking, Funnels, Cohorts
Multi-tenancy	Tenant isolation, Feature flags
Search	Elasticsearch, Algolia, Vector search
Messaging	RabbitMQ, Kafka, SQS

5. Development Opportunities

High Priority

- ● **UI/UX Enhancement** - Modern design needed
- ● **Real-Time Collaboration** - Currently single-user
- ● **Plugin System UI** - No visual marketplace

Medium Priority

- ● **Performance** - Bundle size optimization (691 KB)
- ● **Offline Mode** - Enhanced local model support
- ● **Testing Coverage** - More tests needed

Key Files to Modify

- `src/main/services/` - All 480 services
 - `src/main/ ipc/KimiK2Handlers.ts` - IPC handlers
 - `src/renderer/` - UI components
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