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RADIANT & Think Tank Complete Features List

Comprehensive Feature Reference

Version 4.18.0 | December 2024

Feature Categories

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1. AI Model Management

1.1 Model Router Service

Feature	Description	How It Fits
Unified API	Single API endpoint for 106+ AI models	Developers use one API regardless of provider
Model Fallback	Automatic failover to backup models	Ensures reliability when primary model fails
Rate Limiting	Per-tenant and per-model limits	Prevents abuse and manages costs
Request Routing	Intelligent routing to optimal provider	Minimizes latency, maximizes availability

1.2 Model Metadata Service

Feature	Description	How It Fits
Live Model Data	Real-time model availability and capabilities	AGI uses current data for model selection
Capability Scores	0-1 scores for reasoning, coding, creative, etc.	Enables intelligent model matching to tasks
Pricing Data	Input/output token costs per model	Supports cost estimation and budgeting
AI Research	Automated metadata updates via AI	Keeps model info current without manual work

Feature	Description	How It Fits
Admin Override	Manual corrections to AI-gathered data	Admins can fix inaccuracies

1.3 Supported Models (106+)

Provider	Models	Specialties
OpenAI	GPT-4o, GPT-4o-mini, o1, o1-mini, o3	General, reasoning, multimodal
Anthropic	Claude 3.5 Sonnet, Claude 3 Opus/Haiku	Reasoning, coding, safety
Google	Gemini 2.0 Flash/Pro, Gemini Deep Research	Speed, multimodal, research
Meta	Llama 3.1 (8B/70B/405B)	Open source, customizable
Mistral	Mistral Large, Codestral	European, code
DeepSeek	DeepSeek R1, DeepSeek Chat	Reasoning, cost-effective
Perplexity	Sonar Pro, Sonar	Real-time research
xAI	Grok 2	Real-time knowledge
Cohere	Command R+, Embed	Enterprise, RAG
+6 more	56 self-hosted models	Custom deployments

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2. Orchestration & Workflows

2.1 Orchestration Patterns (49)

Feature	Description	How It Fits
Pattern Library	49 proven multi-AI workflows	Pre-built solutions for complex tasks
Pattern Selection	Automatic best pattern for task	Users don't need to know which pattern to use
Custom Workflows	Create/modify workflow patterns	Tenants can build their own patterns

Pattern Categories: - Consensus & Aggregation (7) - Debate & Deliberation (7) - Critique & Refinement (7) - Verification & Validation (7) - Decomposition (7) - Specialized Reasoning (7) - Multi-Model Routing (4) - Ensemble Methods (3)

2.2 AGI Dynamic Model Selection

Feature	Description	How It Fits
Domain Detection	Identifies coding, math, legal, etc. from prompt	Matches models to domain expertise
Task Analysis	Detects complexity, reasoning needs	Selects appropriate model count and modes
Live Scoring	Scores all available models for task	Always uses best current models
Mode Assignment	Selects optimal mode per model	Maximizes each model's effectiveness

2.3 Model Execution Modes (9)

Mode	Description	How It Fits
Thinking	Extended reasoning (o1, Claude)	Complex problems requiring deep thought
Deep Research	Comprehensive research (Perplexity)	Fact-finding, literature review
Fast	Speed-optimized (Flash models)	Quick queries, autocomplete
Creative	High temperature output	Writing, brainstorming
Precise	Low temperature, factual	Data extraction, compliance
Code	Code-optimized settings	Programming tasks
Vision	Multimodal with images	Image analysis
Long Context	Extended context window	Large documents
Standard	Default parameters	General use

2.4 Parallel Execution

Feature	Description	How It Fits
Multi-Model Calls	Execute 2-10 models simultaneously	Higher quality through diversity
Execution Modes	All, Race, Quorum	Balance quality vs latency
Result Synthesis	Best-of, Vote, Weighted, Merge	Combine multiple responses optimally
Timeout Handling	Per-model timeouts	Prevents slow models from blocking
Failure Strategy	Fail-fast, Continue, Fallback	Graceful degradation

2.5 Visual Workflow Editor

Feature	Description	How It Fits
Drag-and-Drop	Visual workflow design	Non-technical users can build workflows
Method Palette	16 reusable method types	Building blocks for any workflow
Step Configuration	4-tab config panel	Fine-grained control per step

Feature	Description	How It Fits
Canvas Controls	Zoom, pan, fit	Navigate complex workflows
Test & Save	Execute and persist	Validate before deployment

3. Think Tank Platform

3.1 Problem Solving Engine

Feature	Description	How It Fits
Problem Decomposition	Breaks complex problems into parts	Makes hard problems tractable
Multi-Step Reasoning	Chain-of-thought with recorded steps	Transparent reasoning process
Solution Synthesis	Combines step outputs into answer	Coherent final solutions
Confidence Scoring	0-1 quality score per step and overall	Users know reliability

3.2 Session Management

Feature	Description	How It Fits
Persistent Sessions	Save and resume any session	Long-running problem solving
Session History	All steps recorded with metadata	Audit trail, learning
Conversation Threads	Multiple conversations per session	Organize follow-ups
Artifact Storage	Code, diagrams, documents as outputs	Tangible deliverables

3.3 Domain Modes (8)

Mode	Description	How It Fits
Research	Academic research, fact-finding	Source citation, verification
Engineering	System design, architecture	Code artifacts, diagrams
Analytical	Math, statistics, data analysis	Step-by-step proofs
Creative	Writing, ideation, design	Multiple alternatives
Legal	Contracts, compliance	Risk assessment
Medical	Clinical analysis (HIPAA)	PHI sanitization
Business	Strategy, planning	Framework application
General	Mixed problems	Dynamic mode switching

3.4 Collaboration

Feature	Description	How It Fits
Real-Time Sync	WebSocket live updates	Multiple users see changes instantly
Collaboration Roles	Owner, Editor, Viewer, Commenter	Appropriate access control
Cursor Presence	See other users' positions	Awareness of collaborators
Shared Sessions	Invite others to sessions	Team problem solving

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4. Billing & Cost Management

4.1 Credit System

Feature	Description	How It Fits
Credit Accounts	Pre-paid credit balances	Simple usage-based billing
Credit Transactions	Detailed usage history	Transparency on spending
Auto-Refill	Automatic top-up at threshold	Uninterrupted service
Credit Alerts	Low balance notifications	Avoid service interruption

4.2 Subscriptions

Feature	Description	How It Fits
Plan Tiers	Free Trial, Individual, Pro, Enterprise	Options for all user types
Feature Gating	Features by plan level	Upsell path
Usage Limits	Tokens/requests per plan	Fair resource allocation
Stripe Integration	Payment processing	Industry-standard payments

4.3 Cost Management

Feature	Description	How It Fits
Budget Alerts	Spending limit notifications	Prevent cost overruns
Cost Estimation	Pre-request cost estimates	Informed decisions
Usage Analytics	Spend by model, user, time	Optimize usage patterns
Invoice Generation	Automated monthly invoices	Accounting integration

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5. Multi-Tenant Platform

5.1 Tenant Management

Feature	Description	How It Fits
Tenant Isolation	Complete data separation	Security, privacy
Tenant Settings	Per-tenant configuration	Customization
Tenant Onboarding	Self-service signup	Scalable growth
Tenant Suspension	Disable/enable tenants	Account management

5.2 User Management

Feature	Description	How It Fits
User Accounts	Individual user identities	Personalization, audit
Role-Based Access	Admin, User, Viewer roles	Appropriate permissions
User Preferences	Model preferences, settings	Personal customization
User Activity	Usage tracking per user	Analytics, billing

5.3 API Key Management

Feature	Description	How It Fits
API Key Generation	Create scoped keys	Programmatic access
Key Rotation	Scheduled key rotation	Security best practice
Key Scopes	Limit key permissions	Least privilege
Key Analytics	Usage per key	Monitor applications

6. Security & Compliance

6.1 Data Security

Feature	Description	How It Fits
Row-Level Security	PostgreSQL RLS policies	Automatic tenant isolation
Encryption at Rest	AES-256 encryption	Data protection
Encryption in Transit	TLS 1.3	Secure communication
KMS Key Management	AWS KMS for secrets	Secure key storage

6.2 Authentication

Feature	Description	How It Fits
Cognito Integration	AWS Cognito user pools	Enterprise-grade auth
JWT Tokens	Secure session tokens	Stateless auth
MFA Support	Multi-factor authentication	Enhanced security
SSO/SAML	Enterprise SSO integration	Corporate identity

Feature	Description	How It Fits

6.3 Compliance

Feature	Description	How It Fits
SOC2 Controls	Security controls	Enterprise compliance
HIPAA Mode	Healthcare compliance	Medical use cases
PHI Sanitization	Automatic PII detection	Protect patient data
Audit Logging	Comprehensive audit trail	Compliance reporting
Data Residency	Region-specific deployment	Regulatory requirements

7. Analytics & Monitoring

7.1 Usage Analytics

Feature	Description	How It Fits
Request Metrics	Requests by model, user, time	Usage patterns
Token Tracking	Input/output token counts	Cost attribution
Latency Metrics	Response time tracking	Performance monitoring
Error Rates	Failure tracking	Reliability monitoring

7.2 Model Performance

Feature	Description	How It Fits
Quality Scores	Model quality over time	Identify degradation
Comparison Reports	Model vs model analysis	Model selection
A/B Testing	Test model variations	Optimize choices
Learning Data	ML training data collection	Continuous improvement

7.3 Business Intelligence

Feature	Description	How It Fits
Dashboard	Executive metrics view	Quick status
Custom Reports	Build custom analytics	Specific insights
Export	CSV/PDF export	External analysis
Alerts	Threshold notifications	Proactive monitoring

8. Developer Tools

8.1 SDK

Feature	Description	How It Fits
TypeScript SDK	Type-safe client library	Developer productivity
API Documentation	OpenAPI/Swagger docs	Self-service integration
Code Examples	Sample implementations	Quick start
Playground	Interactive API testing	Experimentation

8.2 Webhooks

Feature	Description	How It Fits
Event Webhooks	Push notifications for events	Real-time integrations
Webhook Management	Create, update, delete hooks	Self-service config
Retry Logic	Automatic retry on failure	Reliability
Webhook Logs	Delivery history	Debugging

8.3 Integrations

Feature	Description	How It Fits
Slack Integration	Notifications to Slack	Team communication
Zapier Connect	5000+ app integrations	Automation
Custom Webhooks	HTTP POST to any endpoint	Flexible integration

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9. Admin Dashboard

9.1 Dashboard Pages

Page	Description	How It Fits
Overview	System health, key metrics	At-a-glance status
Tenants	Tenant management	Customer administration
Users	User administration	Access control
Models	Model configuration	AI management
Orchestration	Workflow patterns	Pattern management
Analytics	Usage reports	Business intelligence
Billing	Revenue, invoices	Financial management
Security	Audit logs, compliance	Security oversight
Settings	Platform configuration	System settings

9.2 UI Features

Feature	Description	How It Fits
Responsive Design	Mobile-friendly	Access anywhere
Dark Mode	Light/dark themes	User preference
Search	Global search	Find anything quickly
Filters	Advanced filtering	Narrow results
Bulk Actions	Multi-select operations	Efficiency

10. Swift Deployer App

10.1 Deployment Features

Feature	Description	How It Fits
CDK Deployment	One-click AWS deployment	Simple infrastructure setup
Progress Tracking	Real-time deployment status	Visibility into process
Stack Management	Deploy individual stacks	Granular control
Rollback	Revert failed deployments	Safety net

10.2 QA & Testing

Feature	Description	How It Fits
Test Suites	Run unit/integration tests	Quality assurance
Test Results	Pass/fail reporting	Quick feedback
Coverage Reports	Code coverage metrics	Quality metrics

10.3 AI Assistant

Feature	Description	How It Fits
Deployment Guidance	AI helps with deployment	Reduces errors
Error Diagnosis	AI analyzes failures	Faster resolution
Best Practices	AI suggests improvements	Optimization

10.4 Local Storage

Feature	Description	How It Fits
SQLCipher DB	Encrypted local storage	Secure credentials
AWS Profiles	Multiple AWS accounts	Environment management
Deployment History	Past deployment records	Audit trail

RADIANT Feature Reference v4.18.0

106+ models • 49 patterns • 9 modes • Enterprise-grade