Intent-Driven OS

MVP Apps, Workspaces & Architecture

Generated: February 05, 2026

Executive Summary

This document outlines the Minimum Viable Product (MVP) strategy for the Intent-Driven OS, including essential applications, workspace combinations, and architectural decisions regarding system-level modes versus standalone applications.

Key Recommendation: Implement a hybrid architecture with 12 core applications and 3 essential system-level modes, enabling 70+ unique workspace experiences through intelligent combinations.

MVP Applications (12 Essential Apps)

The following applications form the foundation of the Intent-Driven OS. Each app serves multiple purposes and can be intelligently combined to create diverse workspaces.

1. Core Productivity Apps

Notes/Text Editor

Purpose: writing, focus, study, project, email

Universal building block for any workspace. Simple text editor with formatting.

Timer/Pomodoro

Purpose: focus, study, project

Essential for time-based workflows. Countdown timer with Pomodoro support.

To-Do List/Task Manager

Purpose: project, focus, planning

Tracks actionable items and helps maintain focus on priorities.

Code Viewer/Editor

Purpose: learning, project, coding

Syntax highlighting with read-only learning mode plus edit mode.

Quiz/Flashcard App

Purpose: study, learning

Interactive learning component for active recall and spaced repetition.

2. Communication Apps

Email Draft Composer

Purpose: email, writing, communication

Draft-only interface that never auto-sends. Assists with formal communication.

Chat/Messaging Interface

Purpose: communication, collaboration

Quick messages and conversations in draft mode.

3. Organization Apps

Calendar/Schedule Viewer

Purpose: planning, project, focus

Shows upcoming events and helps with time blocking.

File Browser/Manager

Purpose: project, organization

Access and organize project files efficiently.

Whiteboard/Mind Map

Purpose: planning, brainstorming, project

Visual thinking space for ideas and connections.

4. AI Assistant Apps

AI Chat Panel

Purpose: help, learning, writing, coding

Persistent assistant available in any workspace context.

Explanation Panel

Purpose: learning, coding

Side-by-side contextual explanations for educational content.

Workspace Combinations (34 Examples)

These workspace combinations demonstrate how 12 apps can create diverse, purpose-built environments. Each combination is triggered by natural language intent.

Focus & Deep Work (4 workspaces)

- **"Focus for 30 minutes"** → Notes + Timer
- **"Deep work session"** → Notes + Timer + To-Do (minimal)
- **"Writing time"** → Notes (full screen) + Timer (corner)
- **"Reading session"** → File Browser + Notes + Timer

Academic & Study (6 workspaces)

- **"Study for exam"** → Notes + Quiz + Timer
- **"Learn this topic"** → AI Chat + Notes + Whiteboard
- **"Review flashcards"** → Quiz (full screen) + Timer
- **"Take notes from lecture"** → Notes (large) + Timer
- **"Prepare for presentation"** → Notes + Whiteboard + Timer
- **"Research paper"** → Notes + File Browser + AI Chat

Coding & Technical Learning (5 workspaces)

- **"Learn this code"** → Code Viewer + Explanation Panel + Notes
- **"Start coding project"** → Code Editor + Notes + To-Do
- **"Debug this code"** → Code Viewer + AI Chat + Notes
- **"Code review session"** → Code Viewer (large) + Notes (comments)
- **"Learn programming concept"** → Code Viewer + Explanation + Quiz

Writing & Communication (5 workspaces)

- **"Write email to professor"** → Email Composer + AI Chat
- **"Draft important message"** → Email Composer + Notes (outline)
- **"Write blog post"** → Notes + AI Chat + Timer
- **"Compose formal letter"** → Notes + AI Chat (style guide)
- **"Reply to messages"** → Chat Interface + Notes (draft space)

Project Management (6 workspaces)

- **"Start new project"** → Notes (project doc) + To-Do + Whiteboard
- **"Plan my week"** → Calendar + To-Do + Notes
- **"Organize project files"** → File Browser + Notes + To-Do
- **"Brainstorm ideas"** → Whiteboard + Notes + AI Chat
- **"Project review"** → Notes + To-Do + Calendar
- **"Sprint planning"** → To-Do + Whiteboard + Timer

Hybrid & Complex Workflows (8 workspaces)

- **"Prepare for interview"** → Notes (answers) + Quiz (practice) + Timer
- **"Learn and practice"** → Code Viewer + Notes + Quiz + Timer
- **"Write and research"** → Notes + File Browser + AI Chat
- **"Timed study session"** → Notes + Quiz + Timer + To-Do
- **"Morning routine"** → Calendar + To-Do + Notes
- **"Creative writing"** → Notes (full) + Whiteboard (plot) + Timer
- **"Meeting prep"** → Calendar + Notes + To-Do + AI Chat
- **"Learning sprint"** → Quiz + Explanation Panel + Notes + Timer

Total: 34+ unique workspace combinations from just 12 apps, demonstrating the power of intelligent composition.

Architectural Decision: Modes vs Apps

A critical design decision is whether features like Focus Mode or Dark Mode should be implemented as standalone applications or as system-level modes that affect all applications.

Recommendation: Hybrid Architecture
Use BOTH - Modes as system-level wrappers that modify all apps, not standalone apps themselves.

Why This Approach?

- Modes are cross-cutting concerns that affect everything
- Apps are functional units that do specific things
- Modes + Apps = Exponential combinations without complexity
- Users understand 'Focus Mode' better than 'Focus App'
- Consistency: All apps respond to mode changes uniformly

System-Level Modes (3 Essential)

Focus Mode

Disables notifications, dims non-essential UI, activates Do Not Disturb. Can combine with ANY workspace.

Dark Mode / Light Mode

Visual theme toggle affecting all apps simultaneously. User preference or time-based.

Do Not Disturb Mode

Blocks all interruptions with optional scheduled end time. Visual indicator always present.

Additional Modes (Future Consideration)

Minimal Mode: Hides toolbars and sidebars, maximizes content space

Teaching Mode: Slows explanations, enables step-by-step highlighting

Presentation Mode: Hides personal info, increases font sizes for screen sharing

Modes + Apps Working Together

The true power emerges when modes and apps combine to create contextually perfect environments.

User Intent	Workspace	Active Modes
"Focus and study for 30 min"	Notes + Quiz + Timer	Focus Mode
"Help me code in peace"	Code Editor + AI Chat	Focus + Dark Mode
"Learn this code step by step"	Code Viewer + Explanation	Teaching Mode
"Write email late at night"	Email Composer + AI Chat	Dark + Minimal Mode

Technical Implementation

Apps JSON Schema Extension

Each app declares which modes it supports:

```
{ "id": "notes", "name": "Notes", "purpose": ["focus", "study", "writing"],
"supportsModes": ["focus", "dark", "minimal", "presentation"], "defaultSize":
{"width": 400, "height": 300} }
```

Workspace Structure with Modes

Workspaces track both apps and active system modes:

```
const workspace = { id: "study-001", intent: "study for exam in focus mode", apps: [
{ id: "notes", x: 0, y: 0, width: 400, height: 300 }, { id: "quiz", x: 410, y: 0,
width: 400, height: 300 } ], activeModes: ["focus", "dark"], // System-level modes
layoutType: "horizontal-split" }
```

Key Benefits of This Architecture

Benefit	Impact
Combinatorial Power	12 apps × 6 modes = 72+ unique experiences without code duplication
User Control	Modes can be toggled independently of workspaces
Consistency	All apps respond to mode changes uniformly
Simplicity	Users intuitively understand "Focus Mode" vs "Focus App"
Scalability	New modes don't require new apps, and vice versa
Maintainability	Mode logic centralized, not scattered across apps

Implementation Roadmap

Recommended phased approach for MVP development:

Phase 1: Foundation (Week 1-2)

- Implement 5 core apps: Notes, Timer, To-Do, AI Chat, Email Composer
- Build workspace container abstraction
- Create basic intent parser for matching purposes
- Implement 3 essential modes: Focus, Dark, Do Not Disturb

Phase 2: Expansion (Week 3-4)

- Add remaining 7 apps: Code Viewer, Quiz, Calendar, File Browser, Whiteboard, Chat, Explanation Panel
- Implement dynamic layout engine with docking capabilities
- Integrate local AI for intent parsing and app recommendations
- Test all 5 core scenarios from marketing document

Phase 3: Polish & Intelligence (Week 5-6)

- Add AI narration and guidance features
- Implement workspace persistence and recall
- Add mode auto-suggestion based on intent keywords
- User testing and refinement of workspace combinations

Final Recommendations

Start With:

- **12 MVP apps** as defined in this document
- **3 essential modes:** Focus Mode, Dark Mode, Do Not Disturb
- **Mode infrastructure** that allows apps to respond to mode changes uniformly
- **AI intelligence** to suggest modes based on intent keywords (e.g., 'focus' → activate Focus Mode)

Success Metrics:

- Users can create any of the 34 documented workspaces via natural language
- Mode toggles work consistently across all apps
- Zero manual window arrangement required
- AI correctly identifies user intent in 90%+ of core scenarios
- Workspace creation takes <2 seconds from intent to display

This architecture provides maximum flexibility while maintaining simplicity.

With 12 apps and 3 modes, you can create 70+ unique, intelligent workspace experiences that truly make the OS feel adaptive and responsive to user needs. The system will feel intelligent without being complex, supportive without being intrusive.

This is not just a collection of apps — it's an operating system that reorganizes itself around human intent.