

Aksara Writer

Modern Markdown Converter for Indonesian Businesses

Project Showcase & Technical Documentation

Ak'sara Initiative - Completed Project



PROJECT UPDATE - SEPTEMBER 2025




AKSARA WRITER IS NOW AVAILABLE!

Status:  Phase 1 MVP **COMPLETED** and published to NPM!

Quick Install:

```
npm install -g aksara-writer
```

Available Now:

-  [NPM Package](#)
-  [GitHub Repository](#)
-  VS Code Extension (released)

Executive Summary

Aksara Writer is a modern markdown conversion tool that has been **successfully developed** and published as an open-source project for Indonesian business needs. This project complements the Ak'sara Initiative ecosystem by providing a powerful and user-friendly documentation solution.

Mission Accomplished: The best documentation tool for Indonesian developers and businesses with full Indonesian language support and ready-to-use business templates - **NOW AVAILABLE!**

Open Source: Released under **BSD-3-Clause License** - free for everyone, commercial and personal use.

3

Months Actual Development

\$0

Bootstrap Cost (Self-funded)

1000+

NPM Downloads (Growing)

Project Overview

Problem Statement

- **Marp limitations:** Focus on presentations, not suitable for business documents
- **Lack of localization:** Existing tools don't support Indonesian language properly
- **Business templates:** No specific templates for Indonesian business needs
- **Complex distribution:** Complex tools difficult for non-developers to use

Proposed Solution

Aksara Writer offers:

- **Multi-format export:** HTML, PDF, PPTX from single source markdown
- **Indonesian-first:** UI and templates in Indonesian language
- **VS Code integration:** Extension with live preview and export
- **Business templates:** Ready-to-use templates for invoice, proposal, reports

Market Opportunity

Primary Market

- **Indonesian developers** (500K+ developers)
- **Small-medium businesses** that need professional documentation
- **Content creators** and **technical writers**
- **Government agencies** that need document standardization

Secondary Market

- **Enterprise companies** for internal documentation
- **Educational institutions** for learning materials
- **Freelancers** and **consultants** for proposals and reports

Market Opportunity

Competitive Analysis

TOOL	STRENGTHS	WEAKNESSES	MARKET POSITION
Marp	VS Code integration, multi-format	Presentation-focused, English only	Incumbent
Pandoc	Powerful conversion	Complex CLI, no GUI	Developer tool
Notion	Easy to use	Proprietary, limited export	Consumer tool
Aksara Writer	Indonesian + business focus	New tool	Opportunity

Technical Architecture

Technology Stack

Core Engine (Bun/TypeScript → Rust Migration)

- **Phase 1:** Bun + TypeScript for rapid prototyping
- **Phase 2:** Rust core for performance and single binary distribution
- **Libraries:** Marked.js, Puppeteer, JSZip, Gray-matter

VS Code Extension (TypeScript)

- Extension API for command integration
- Webview for live preview
- Language server protocol for advanced features

Architecture Overview

Key Features

Core Conversion Features

- **Markdown to HTML:** Styled web pages with Indonesian themes
- **Markdown to PDF:** Professional documents with A4 formatting
- **Markdown to PPTX:** PowerPoint presentations for business
- **Frontmatter support:** Metadata for document properties

Indonesian Business Templates








- **Invoice/Faktur:** Tax-compliant Indonesian invoices
- **Business Proposals:** Professional business proposals
- **Corporate Reports:** Corporate reports and presentations
- **Official Letters:** Official letters and government documents

Development Roadmap

Phase 1: MVP Development COMPLETED

Focus: Core functionality with Bun/TypeScript

Features:  **ALL DELIVERED**

-  Basic markdown to HTML/PDF/PPTX conversion
-  CLI interface (`aksara-writer` command)
-  VS Code extension with live preview
-  Template system with business templates
-  Indonesian language support
-  Positioning system for images
-  Table support and code blocks

Deliverables:

Development Roadmap

Phase 2: Business Features (Months 4-6)

Focus: Template library and advanced features

Features:

- Complete template library (8+ templates)
- Advanced theme system
- PPTX export functionality
- Live preview server
- Indonesian localization

Deliverables:

- Feature-complete tool
- Template marketplace

Development Roadmap

Phase 3: Performance & Scale (Months 7-9)

Focus: Rust migration and optimization

Features:

- Rust core for performance
- Single binary distribution
- Advanced PDF generation
- Batch processing capabilities
- Enterprise features






Deliverables:

- Production-ready tool
- Performance benchmarks

Project Sustainability

Current Model: Open Source First

Core Project (FREE - BSD License):

-  Complete document conversion system
-  VS Code extension with full features
-  Indonesian business templates
-  Multi-format export (HTML, PDF, PPTX)
-  Self-sustaining development

Community Contributions:

- Template sharing and improvements
- Localization for other regions
- Feature requests and bug reports

Market Entry Strategy

Phase 1: Developer Community (Months 1-3)

Target: Indonesian developer community

Approach:

- Open source release on GitHub
- Tech conference presentations
- Developer community engagement
- Documentation in Indonesian language

Goals:

- 1,000 GitHub stars
- 100 VS Code extension installs
- Community feedback integration

Market Entry Strategy

Phase 2: Business Users (Months 4-6)

Target: SME and content creators

Approach:

- Business template showcase
- Tutorials and workshops
- Partnership with business consultants
- Case studies from early adopters

Goals:

- 5,000 active users
- 500 premium subscribers
- Template marketplace launch

Market Entry Strategy

Phase 3: Enterprise Market (Months 7-9)

Target: Large corporations and government

Approach:

- Enterprise feature development
- Government procurement participation
- Corporate partnership programs
- Professional services offering

Goals:

- 10 enterprise customers
- Government pilot programs

\$100K annual revenue

Competitive Advantages

Technical Advantages

- **Modern stack:** Bun + Rust for superior performance
- **Multi-format support:** HTML, PDF, PPTX from single source
- **Indonesian optimization:** Font, layout, compliance for Indonesia
- **VS Code native:** Seamless integration with popular editor

Market Advantages

- **Indonesian-first:** Complete localization and cultural context
- **Business focus:** Templates and features for business needs
- **Community-driven:** Open source with community contribution
- **Price competitive:** 70% cheaper than enterprise solutions

Risk Analysis

Technical Risks 🟡

Risk: Complexity of multi-format conversion

Mitigation: Phased development, proven libraries, extensive testing

Risk: Performance issues with large documents

Mitigation: Rust migration, streaming processing, optimization

Market Risks 🟢

Risk: Competition from established tools

Mitigation: Indonesian focus, business templates, community building

Risk: Slow adoption due to existing workflows

Mitigation: Easy migration, VS Code integration, clear value proposition

Business Risks 🟡

Success Metrics

Technical KPIs

- **Conversion speed:** <5 seconds for typical document
- **Output quality:** 100% accurate formatting for business documents
- **Extension adoption:** >10K VS Code installs within 6 months
- **Template usage:** >80% users using templates

Business KPIs

- **User growth:** 1K → 5K → 25K users within 9 months
- **Revenue:** \$5K (Month 6) → \$25K (Month 9) → \$100K (Year 1)
- **Market penetration:** 5% Indonesian developer community
- **Customer satisfaction:** >4.5/5 rating on VS Code marketplace

Resource Requirements

Development Team

- **Technical Lead:** Rust + TypeScript expertise (\$75K/year)
- **Frontend Developer:** VS Code extension development (\$60K/year)
- **Backend Developer:** Document processing pipelines (\$60K/year)

Infrastructure & Tools

- **Development tools:** \$5K/year
- **Cloud infrastructure:** \$10K/year
- **Design tools:** \$3K/year
- **Testing devices:** \$5K one-time

Future Development Opportunities

Current Status: Self-Sustaining Open Source

Aksara Writer v1.0 is **complete and free** under BSD license:

-  **No budget required** for current features
-  **Self-funded** bootstrap development
-  **Community-driven** growth model
-  **Commercial-friendly** license

Optional: Enhanced Development Program

For organizations wanting to accelerate advanced features and ecosystem growth

Potential Sponsorship Benefits:

- **Priority feature development:** Custom business templates

Strategic Value

Ecosystem Synergy

- **Aksara IS Documentation:** Tool for platform documentation
- **Developer Community:** Attracts developers to Ak'sara ecosystem
- **Business Templates:** Support for SME in digitalization
- **Government Adoption:** Standard tool for government documentation

Market Position

- **Indonesian market leader** in markdown conversion
- **Developer tool of choice** for Indonesian developers
- **Business standard** for professional documentation
- **Open source champion** in Indonesian tech community

Conclusion

Strategic Recommendation

Key Success Factors

- **Technical execution:** Quality conversion engine with excellent performance
- **Indonesian focus:** Deep understanding of local business needs
- **Community building:** Open source adoption and community contribution
- **Business model:** Sustainable freemium with enterprise upsell

Next Steps

- **Team recruitment:** Hire technical lead and frontend developer
- **MVP development:** 3-month sprint for basic functionality
- **Community launch:** Open source release with VS Code extension
- **Business development:** Template marketplace and premium features

Contact Information:

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