

## **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:

#### **Available Now:**

- 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
- V 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

Tamanlata manusatalasa



## **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

Darfarmanaa hanabmarka



## **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

Committee foodbook into anotion



## **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

Tamalata markatalasa launah



## **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

41001/ -----



## **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

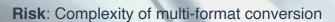
### **Market Advantages**

- 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% cheaner than enterprise solutions



## **Risk Analysis**

#### **Technical Risks**



Mitigation: Phased development, proven libraries, extensive testing

Risk: Performance issues with large documents

Mitigation: Rust migration, streaming processing, optimization

### Market Risks



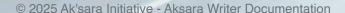
Risk: Competition from established tools

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:

- V 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
- Rusiness development: Template marketplace and premium features

#### **Contact Information:**

- Project Lead: [To be assigned]
- Technical Architect: [To be assigned]
- Business Development: [To be assigned]
- Email:

sponsor.aksara@tuta.com
contribute.aksara@tuta.com
partner.aksara@tuta.com
relations.aksara@tuta.com